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AUGUST, 1954

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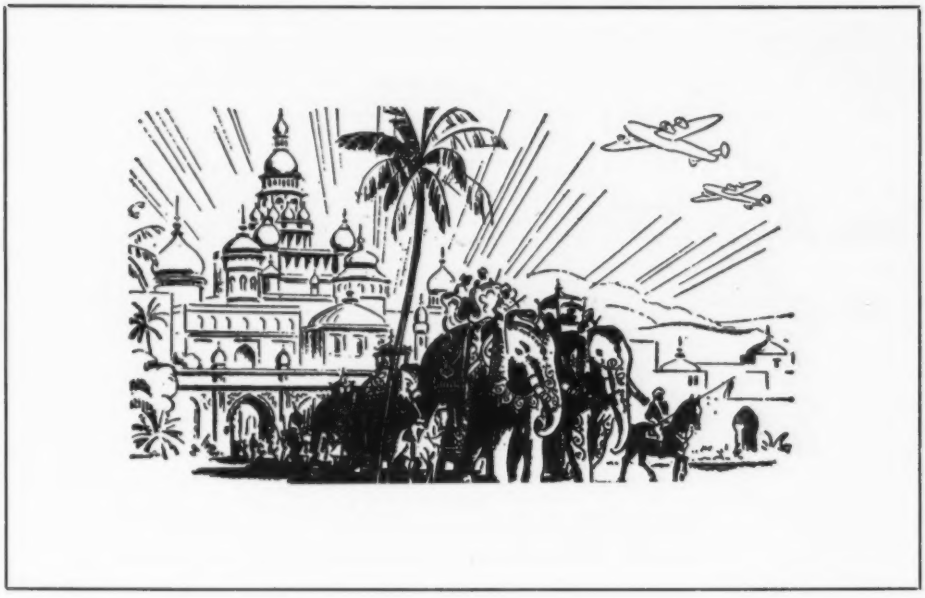

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the American Perfumer and ESSENTIAL OIL REVIEW
COSMETICS · SOAPS · FLAVORS

Established 1906

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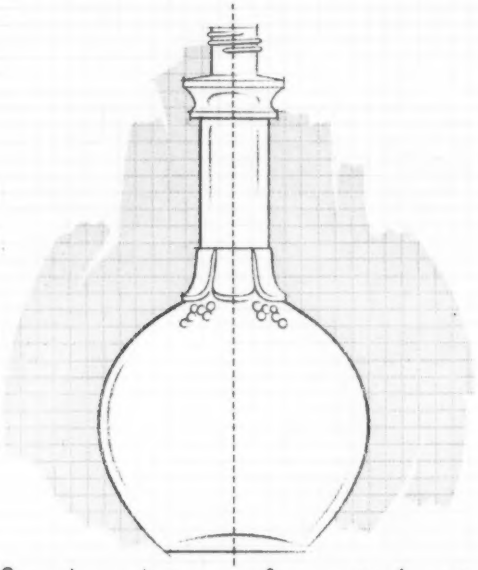
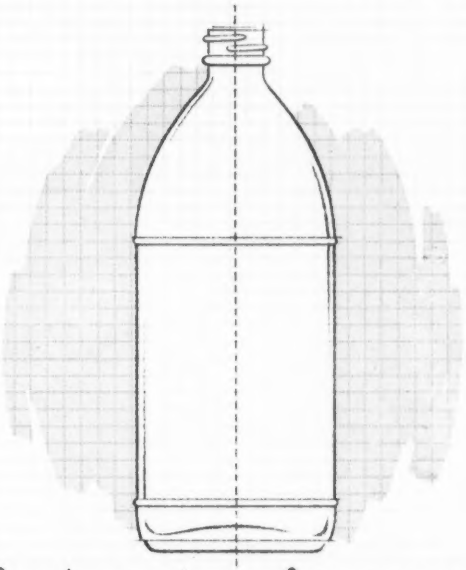
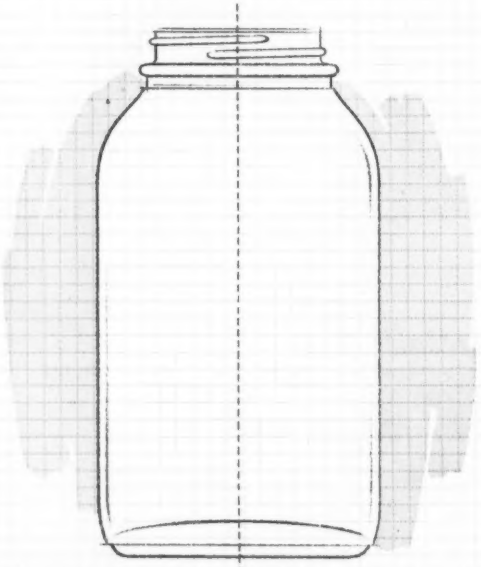


A package designer who creates beauty to capture shopper's attention?



A package engineer whose concern is protection for the product inside?



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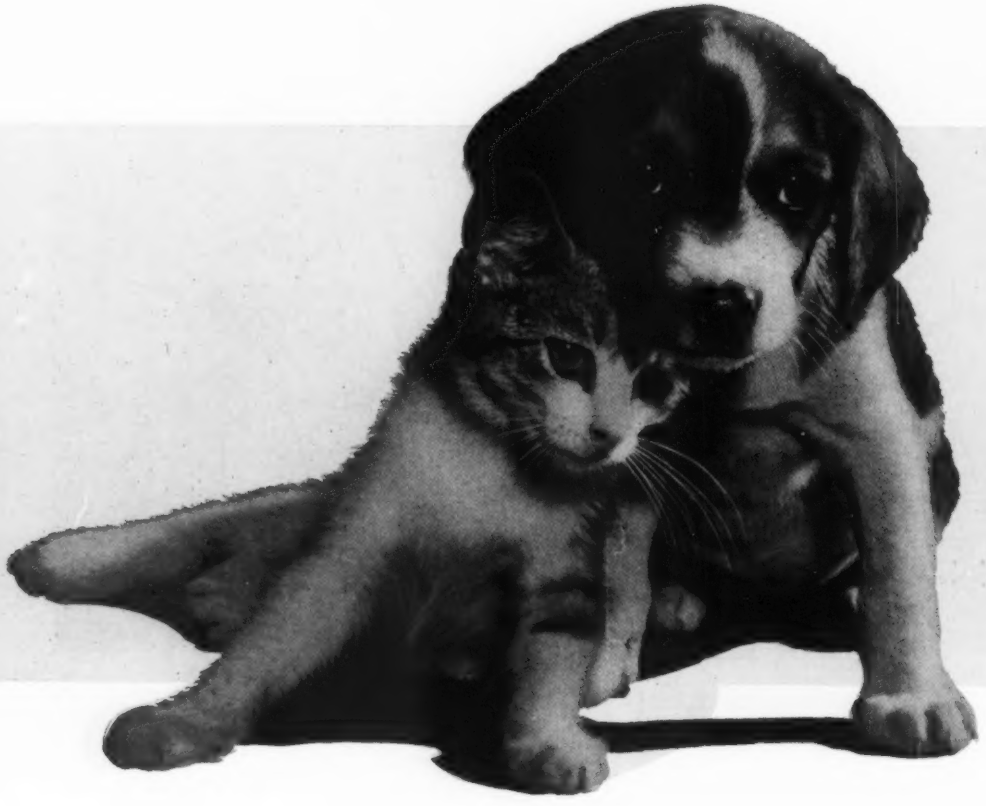

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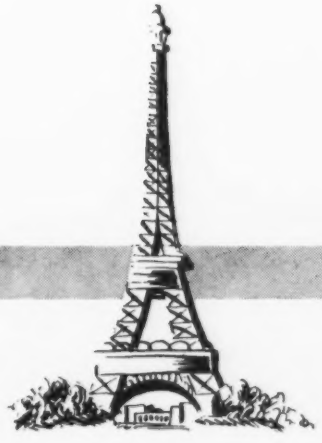

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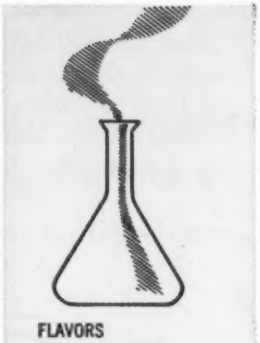

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Desiderata

BY MAISON G. DENAVARRE, F.A.I.C.

Sun Screens

Two new sun screens have been offered but each has come in too late in the season to be used this year. One is really an additive to other sun screens such as the salicylates, umbelliferones and para aminobenzoates, on a 50-50 basis. This particular product has been skin tested and found to be safe. It is even suggested as a food and drug "stabilizer." This screen in a concentration of 100 p.p.m. shows about 10 per cent transmission in a 1 centimeter cell. The supplier claims it is a good solvent and is quite stable to both alkalies and acids.

The other screen, a crystalline material, passes the tests set up by the military specifications for sun burn preventive cream when used at a concentration of ½ per cent. In this concentration it is soluble in 50 per cent alcohol. It is also quite soluble in propylene glycol, sufficiently soluble in mineral oil to be effective and many times more soluble in vegetable oils. The low concentration necessary plus the low price will make this screen interesting to all sun tan preparation manufacturers.

Skin tests and toxicity tests have been made and performance tests on humans, in sunshine, though partially reported, are still in progress.

While a ½ per cent concentration passes the requirements for a military sun screen, the supplier suggests a concentration of about 1 per cent for most purposes. A half per cent of sun screen gives about 80 per cent transmission while 1 per cent gives practically zero transmission in the range of 2967 angstroms.

Chlorophyll-Asparagus Test

A well-known odor authority, R. W. Moncrieff, published an article in the May 22 issue of the *Pharmaceutical Journal*, comparing the anti-odorant properties of chlorophyll and charcoal. Details of the procedure and observations appear in the original article. It is the conclusion which is interesting. These conclusions are quoted from the original.

"It seems to be clear that neither the ingestion of chlorophyll tablets nor that of charcoal will prevent the appearance of a characteristic odour in the urine after asparagus has been eaten, but that the addition to the urine of either water-soluble chlorophyll or charcoal will effectively remove the odour from the urine *in vitro*.

"As a side issue, it was observed that the chlorophyll considerably delayed the incidence of mould growth on the urine." (Editor's italics.)

Maybe there is something to check in the last conclusion. This might be a more valuable use for chlorophyll than its deodorant properties.

Benzoin and Gangrene

Naide reporting in the June 19 issue of the *J.A.M.A.*, finds that the most useful of any substances tested was the compound tincture of benzoin to prevent gangrene in his patient suffering from ischemia. He simply applies a coating to the area involved which lasts for a day or two and can be renewed. The doctor arrived at his conclusion after studying 120 patients.

Antihistamines and Lipstick

Because of the allergic manifestations resulting from the use of lipsticks, according to one supplier, he finds that lipstick manufacturers are experimenting with the use of antihistamines in the composition. The idea is to neutralize any allergy as fast as it is manifest.

Pyrilamine maleate is one such antihistamine being suggested. It has some fat solubility, has a slight ultraviolet absorption and no hygroscopicity. Whether there is any value in such a maneuver or not only time will tell. Readers will recall this department suggesting such experimentation years ago.

Atmospheric Poisons

The American Governmental Conference of Industrial Hygienists has announced its 1954 "Threshold Limit Values for 1954." The values refer to the maximum average atmospheric concentration of a substance to which a worker may be exposed per an 8-hour day. For the cosmetic industry, the following are of importance:

Acetone	1000 p.p.m.
Ammonia	100 p.p.m.
n-Butyl acetate	200 p.p.m.
Carbon Tetrachloride	25 p.p.m.
Ethyl acetate	400 p.p.m.
Ethyl alcohol	1000 p.p.m.
Hydrogen Sulfide	20 p.p.m.
Ozone	0.1 p.p.m.
Isopropyl Alcohol	400 p.p.m.
Stoddard Solvent	500 p.p.m.
Toluene	200 p.p.m.

When it comes to powders, titanium dioxide 15 mg/cu meter, talc 20 million particles/cu. ft. air and zinc oxide (fumes) 20 mg/cu meter.

Notes

The British Minister of Housing and Local Government appointed a committee to study among other

One of these

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- Benzyl Chloride
- Benzoates
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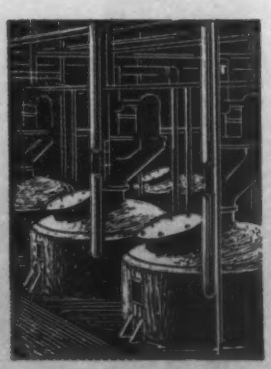
- Guaiacols
- Methenamine
- Parasepts®
- Propyl Gallate
- Resorcinol
- Saccharin
- Salicylamide
- Salicylates
- Tolyl Aldehyde



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things, the effect of synthetic detergents on hands. The conclusion reached is that the incidence of dermatitis is not significantly greater than it was when soaps or built soap (with alkalies) were used for washing. . . . Atlas Powder Company's emulsion stability tester designed for their own use originally, is available through Lab supply houses. . . . Among the hardest microbials to control with preservatives in cosmetics are Monilia, Aspergillus, Pseudomonas, Penicillium and Saccharomyces. . . . Actually the "yeasts" pose some real problems. . . . Stokinger, writing in *Industrial Hygiene and Occupational Medicine* (May) presents a good review of ozone toxicity going back to 1857. . . . Fatty acids C_9-C_{12} are bactericidal and are being further studied. . . . TMTD (Tetramethylthiuram disulfide) is said to be a better soap antiseptic than the bisphenolics, according to Vinson. . . . Interlingua, the latest international language, has a new book for the low price of $2, which teaches vocabulary and grammar. It is intended to enable scientists to know foreign published work. . . . A new lanolin derivative is available for making colloidal lanolin solutions in mineral oil. . . . British Patent 644,339 covers the use of one-half per cent concentrations of potassium or ammonium fluorotitanate, fluorohafniate or germianate in dentifrices. . . . Don't miss the Seminar of the Society of Cosmetic Chemists to be held September 23 and 24, at the New York Academy of Sciences. It is a post-graduate cosmetic course. Attendance limited. Get your reservation in early. . . . The T.G.A.'s several year study of cosmetic materials and their skin behavior has culminated in the book by Greenberg and Lester entitled, "Handbook of Cosmetic Materials."

Questions & Answers

1082: Odor Modifier

Q. It is difficult to remove the medicinal odor from a scalp and hair cream containing a 2 per cent of carbolic acid (phenol) lanolin and an animal fat. Mint has been tried, but an overamount of it steps up the cost too much. Geranium, lavender also have been tried. The mint seems to be the one which helps more than the other flower oils. Is there something else to take out the odor?

L. W. C., Pennsylvania

A. Two per cent carbolic acid in a hair cream is much too concentrated in our opinion, and of course, you will have to state this on your labeling for it will make a drug out of the product. Mint is still the best odor modifier. Other than that you might ask one of the prefume houses who advertise in The American Perfumer *to supply you with some suitable compounds. Peppermint, in addition to modifying the odor, also tends to reduce the irritation which might result from phenol; the larger amount of peppermint oil, the better the effect up to a maximum point.*

1083: Hair Straightener

Q. Some time ago, there appeared in an issue of *The American Perfumer,* a formula consisting of cetyl alcohol propylene glycol emulsion and thiogylcolate ammonium. I shall be very grateful if you will kindly send us correct preparations or percentages of their chemicals, with method of procedure. We are interested in the "Perma Strate" type of hair straightening formula.

D. B., Texas

A. We do not recommend an ammonium thioglycolate hair straightening cream. The experience of the industry is that there is considerable irritation resulting from the use of such products. If you want to experiment along this line, however, you might start by taking 10 or 12 per cent of cetyl alcohol, 1 per cent of sodium lauryl sulfate pure, 5 to 15 per cent polyol, ammonium thioglycolate concentrate and water, a sufficient quantity to make an emulsion. Heat the alcohol and polyol to a temperature of 65°C. Heat the sulfate and water at the same temperature. Add the alcohol to the water under agitation, followed by the thioglycolate after the product has cooled to about 35 degrees C.

1084: Breath Deodorant

Q. I would like to manufacture a breath deodorant that would really be a genuine breath deodorant. The cost of basic ingredients would be of little consequence. Such a deodorant would not mask the breath with another odor, but would actually obliterate all odor. About five or six years ago I was introduced to a chemical that was supposed to do this, but in the meantime I have forgotten the name of the chemical. Perhaps you might know. Incidentally, the chemical was not chlorophyl. And I would like to add further that in my private practice I have never seen chlorophyl deodorize or cure anything.

D. D. S., Oregon

A. In regard to oral or breath deodorants, the most effective are probably the most dangerous. We refer to formaldehyde, for any used in a concentration that would do the job would undoubtedly irritate the oral tissues. Furthermore, it is doubtful if any such effect could be more than transient because as you must realize the oral cavity is an ideal media and incubator for bacteria, and as such you are always producing bad odors so long as there are bacteria in the mouth. It is impossible to sterilize the oral cavity. So . . . if you refer to odors coming up from the stomach, that probably is no easier. As a result, effectiveness is transient and will at best last possibly a couple of hours. To achieve this, you might try the use of a cationic germicide along with suitable essential oils which both deodorize and have germ inhibiting properties.

1085: Vitamins in Hair Pomade

Q. Our scalp pomade now consists of vegetable oils which we thicken with petrolatum; no water. Can you give us a way of incorporating into the same vitamin "A" and "D" with lanoline and a suitable preservative? Can this be done without using water?

S. H. T., Florida

A. If you want to add fat soluble vitamins A and D, there are any number of sources for these which we are sending you in a separate letter. Dissolve the vitamin concentrate in a suitable proportion in the vegetable fats with the lanolin. A suitable preservative or antioxidant is N.D.G.A. or one of the gallates. Vitamins A and D are fat soluble, not water soluble.

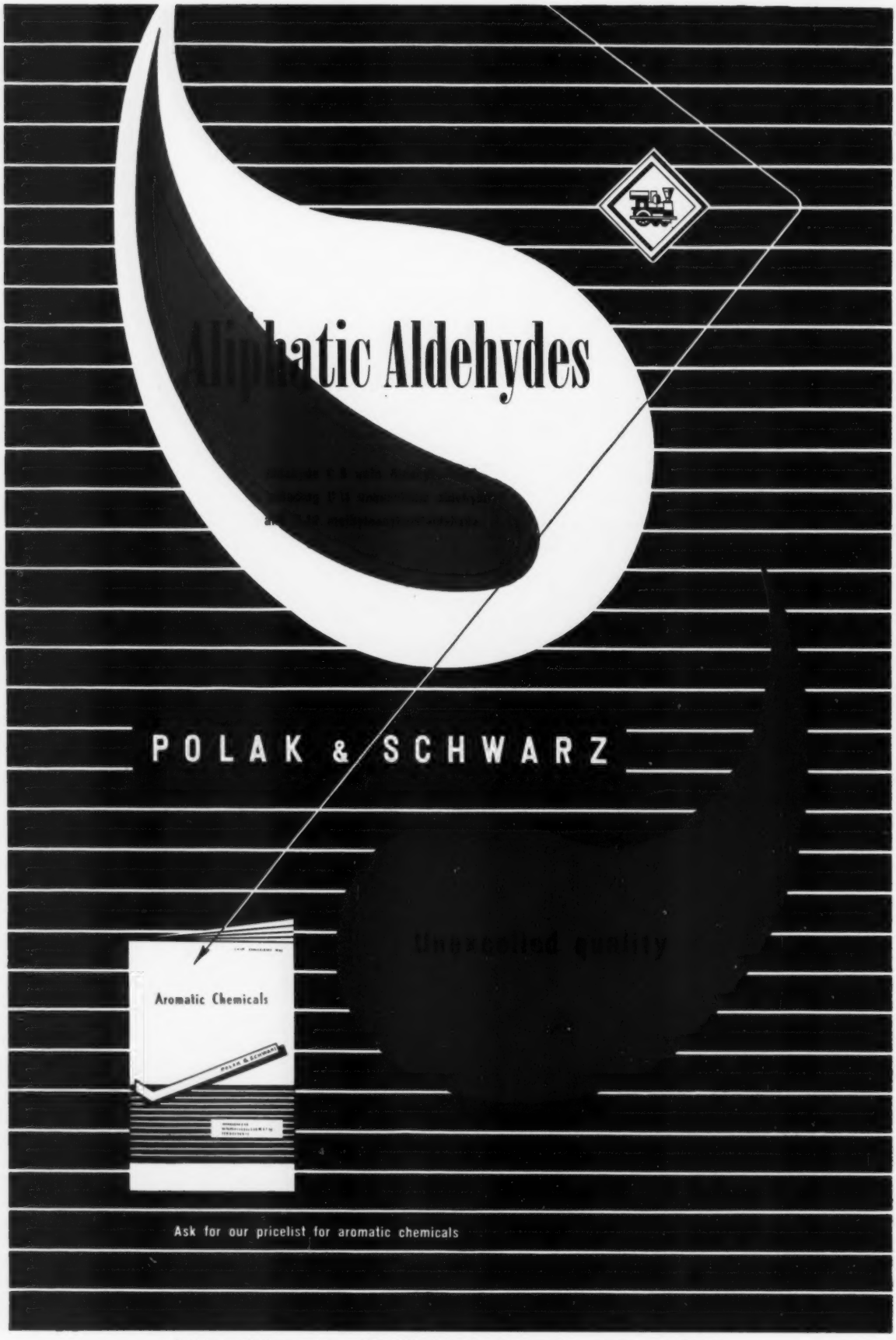
1086: Shampoo Formula

Q. Please be kind enough to send us a formula for Ph-8 lather oil shampoo. We subscribe to *The American Perfumer,* and find it very interesting and helpful.

B. H. G., Mass.

A. We are sorry that we are unable to give you the formula for such a product for we do not know what it is. However, the following is a formula given by H. Wassell before the Society of Cosmetic Chemists last December, which you might try by diluting the concentrate to suit your own need.

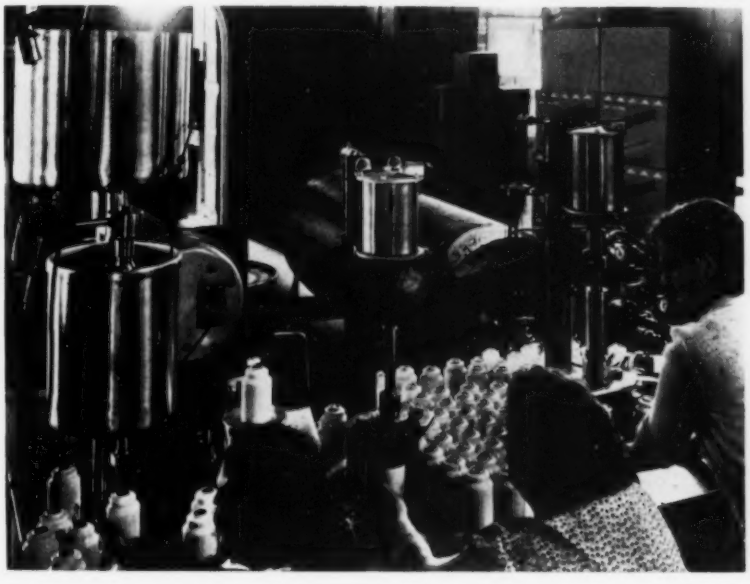
Oleic Acid	112.0
Coconut Oil Fatty Acids	84.0
Potassium Hydroxide	51.5
Propylene Glycol	152.5



Polak & Schwarz Inc., 667 Washington Street, New York - 14 (N.Y.)

New Cosmetic Formulations Depend on Glycerine

ROBERT A. STETSON



Glycerine is widely used in aerosol type shaving creams, hand lotions, and related products. Left, close-up of the filling operation.

Photo courtesy of Du Pont Co.

WORKERS in the cosmetics field have long appreciated the many valuable "extras" that glycerine's properties impart to formulations. They are constantly building these desirable qualities into new products, and thus expanding glycerine's usefulness.

In discussing the growing role of glycerine, McDonough[1] has recently pointed out that nearly every trend in America, whether social or economic, will affect the use of glycerine in cosmetics. For example, the prolongation of life is creating an ever-expanding market for products to care for skin of old people. Formulation of such items demands "the lasting youth-like softness and smoothness that glycerine's presence in cosmetics imparts to the skin." Similarly, the necessity of women's doing their own housework and coming in contact with skin-drying materials, represents another growing market. And this authority states that hand lotions and creams with the humectant action of glycerine are the best and most satisfactory for this need.

Speaking in the same vein, McDonough observes that the trend in this country to so-called dry skin has become so great that foundation bases are more and more being cited for their moisture-retaining action. This, in most instances, is due to the presence of glycerine in increasingly larger proportions.

Humectancy Most Important

As far as cosmetic formulation is concerned, the most important property of glycerine is its humectant or hygroscopic action. Its status in this respect was well indicated by Chadwick and Pears[2], who said that glycerine, "is pre-eminent among the humectants used in cosmetics and it is doubtful if its position can be challenged by other materials in this field. It possesses greater powers of water absorption than most of the other products which have been suggested for use and under normal conditions is readily available in the requisite quality."

More recently in a discussion of humectants for van-

ishing creams, it was stated[3] that glycerine is regarded as the standard by which other humectants for cosmetic creams may be judged. This report pointed out that glycerine's hygroscopic activity is such that a 30-Gm. sample is capable of absorbing 6 Gm. of water in five days when exposed to air of 60 per cent relative humidity (at a temperature of 70° F.). It also cited glycerine as having practically no vapor pressure at atmospheric temperatures, and hence not being lost from creams through evaporation.

This humectant action, which alone would rate it as a major raw material, is tied up with other properties that make glycerine so valuable in cosmetics. Closely related is its effect in conditioning creams so that during application, the rate of water loss is retarded to allow ample time for spreading, and "rolling" due to poor adhesion of the film to the skin is reduced or prevented[2]. Burton[4] associates the water-retaining properties of humectants like glycerine, with their emollient properties. And it is well known, of course, that the plasticizing and softening properties of glycerine are intimately associated with its hygroscopicity.

Control of Consistency

It is also being more widely recognized that glycerine exerts some influence on the consistency of the finished product. The advantage of using glycerine to give body to a lotion is well established.

In the studies by Segur and Miner[5] on a series of vanishing creams, it was also shown that glycerine influences the stiffness of vanishing creams. With glycerine, the maximum stiffness was obtained at 7.5 per cent concentration, whereas with sorbitol this maximum effect required a 15 per cent concentration.

All of these properties, as well as other advantageous characteristics, help to explain the growing use of glycerine in cosmetic formulations. Although, in the main, glycerine works in conjunction with the other ingredients in a given formula, it is a valuable skin-care agent in its own right. Illustrative of the continued role of glycerine, as such, is the persistent popularity of the old fashioned lotion, glycerine and rose water.

Moreover, there have been several attempts—some quite successful—to produce so-called "solid glycerines." Thus, it is reported[6] that a European firm is producing a solid glycerine under the name of Glysolid and it is claimed to have many advantages over liquid glycerine. In this country, Taub and Mattikow[7] have developed a process for making a "semi-solid" glycerine. These workers point out that glycerine is a recognized ingredient in cosmetics where its properties as a solvent, emollient, lubricant and penetrant are valued, but that its liquid state limits its use in many cases.

In searching for means to thicken glycerine, these men found that the use of a small amount of phosphatides with petrolatum permitted large amounts of glycerine to be incorporated into the petrolatum. Up to seven times as much glycerine as petrolatum may be present in the resulting ointment-like material. A bland semi-solid glycerine may be prepared in substantially anhydrous form or it may contain water. In any event, it is readily dispersible in water and is highly compatible. Although petrolatum is the preferred material for mixing with glycerine, other substances may be used, including lanolin, fatty glycerides or fatty acids.

This naturally leads to a consideration of the role of glycerine in the production of modern solid or stick cosmetics, especially solidified colognes and perfumes. In such products, glycerine's humectant and plasticizing effects are called into use. For example, in discussing the production of solidified fragrances, Hilfer[8] points out that such products consist essentially of soap-gelled alcohol containing the perfuming agents.

The high alcohol content poses the problem of controlling evaporation. This is offset to some extent by the incorporation of a polyhydric alcohol, glycerine being the first agent listed for this purpose. Such an agent also helps to maintain the desired degree of transparency, serves to prevent the film from drying too quickly during application.

Glycerine is used in hand lotions for its humectant action. Above, bottles at the Evans Chemetics, Inc. plant are capped and boxed.

It is now recognized[9] that glycerine increases the plasticity of cologne sticks and assists in the smoothness of application. However, too high a concentration will retard proper drying and reduce the cooling effect when used. Up to about 5 per cent of glycerine is generally included[10].

In presenting formulas for solid colognes, Jannaway[11] observes that glycerine is useful for slowing down the evaporation rate of the alcohol and, in addition, it enhances the transluscent appearance of the finished stick. Its use is illustrated in the following basic formula for making solid cologne:

Sodium stearate or hard soap	7 parts
Glycerine	3 "
Cologne perfume oil	3 "
Ethyl alcohol	87 "

The molded sticks should be allowed to cool slowly in order to prevent the formation of air pockets. The cooled sticks are wrapped in foil.

A variation of this formula is suggested by Pears[12]:

Sodium stearate	8 parts
Isopropyl myristate	10 "
Glycerine	3 "
Cologne perfume oil	3 "
Ethyl alcohol	76 "

Hilfer[13] states that many of the deodorant sticks are formulated exactly as are the stick colognes, with the

Empty aerosol containers for shaving cream move from the sorting table at extreme left into the filling line where the soap solution is first placed in the can. The valve is then inserted and the liquefied gas propellent is introduced into the can under pressure through the valve orifice. Worker at extreme right is weighing loaded containers in one of series of quality control steps.

Photo courtesy Du Pont Co.

inclusion of a bacteriostatic agent to prevent bacteria from forming odoriferous degradation products of perspiration. He also points out that suntan preparations and insect-repellent products may be prepared easily by using a similar procedure.

Other Solid Cosmetics

Glycerine's value in other solid cosmetics is also indicated in Hilfer's[14] discussion of hand cream sticks. He points out that the usual hand cream is essentially designed as a protective film for the hands with some ingredients added to further increase its emolliency and its esthetic properties. Primarily, the ingredients used are stearic acid and glycerine, plus a small amount of potassium, ammonium or triethanolamine soap to form the emulsion. Secondary effects are provided by incorporating lanolin, glyceryl monostearate or other hydrophylic esters and perhaps fixed oils, depending on the desired effect.

It seems reasonable, says Hilfer, that cream sticks could be formulated so that the same substances may be incorporated. The simplest approach would be to use a sodium soap instead of a soft soap and to proceed from this point. By increasing the amount of soap over the usual concentration in a hand cream and by lowering the concentration of glycerine, such a product could easily be made.

In contrast to the stick cosmetics are the aerosol type sprays and foams that are now finding such wide and expanding uses. As with other new developments, glycerine has found a number of uses in the newer formulations, especially in the aerated type pressure-propelled shave creams, hand lotions and related products. For example, 5 per cent of glycerine is incorporated in the Freon-propelled lather and brushless shaving cream formulas offered by the DuPont company[15]. This is shown in the following formula for an aerated type low pressure-propelled lather shaving cream:

Sodium alcohol sulfate (Avitex SF, DuPont)	25.0	per	cent
Stearic acid	5.0	"	"
Triethanolamine	1.0	"	"
Glycerine	5.0	"	"
Perfume	0.2	"	"
Water	63.8	"	"

The glycerine, water, triethanolamine and alcohol sulfate are mixed while warming to 160 or 170°F. The stearic acid is melted and added to the aqueous portion while stirring. Eight per cent of a Freon 12-Freon 114 mixture is used with 92 per cent of this preparation in the dispenser. The product is fluid in the can and is stable. The foam has excellent body and stability.

The same source provides the following formula for a pressure propelled hand lotion which, as might be expected, contains a higher proportion of glycerine:

Sodium alcohol sulfate (Avitex SF, DuPont)	20.0	per	cent
Polyethylene glycol 400 distearate	2.0	"	"
Isopropyl palmitate	4.0	"	"
Glycerine	10.0	"	"
Perfume	0.2	"	"
Water	63.8	"	"

Mix the water, glycerine and alcohol sulfate and heat to 150° F. The polyglycol stearate and the palmitate are heated together and added to the aqueous phase while agitating; the perfume being added during cooling. The resulting emulsion is white and fluid. It can be packed (90%) with 10% of a Freon 12-Freon 114 mixture. A very small quantity spreads easily and quickly on the skin and vanishes with rubbing.

New Suntan Preparations

Glycerine's beneficial effects on the skin have made it a standard component of suntan preparations. This value has been reaffirmed in the several new formulas recommended by both dermatologists and cosmeticians. In a report from Florida, in which he stressed the dangers of excessive exposure to the sun's rays, Waisman[16] recommended the following protective lotion:

Isobutyl-para-aminobenzoate	5.0	per	cent
Alcohol	60.0	"	"
Glycerine	10.0	"	"
Water	25.0	"	"

It is suggested that the addition of 2% tannic acid to this formula will help in tanning and to increase the sunburn-preventive action of the lotion.

In England, Russell and Anderson[17] investigated the

protective effect of a number of sunscreening agents when incorporated in different bases. They found that protection against sunburn is provided most conveniently by a vanishing cream base containing 5% tannic acid, 5% quinine hydrochloride, 5% Pyribenzamine (tripelennamine), 10% sodium *para*-aminobenzoate or 10% salol.

Of the several bases studied, the following vanishing cream base was recommended as a stable emulsion of good cosmetic quality:

Stearin	25.0	parts
Triethanolamine	1.0	"
Glycerine	10.0	"
Oil of theobroma	1.0	"
Cetyl alcohol	0.5	"
Water, distilled	62.5	"

The last few years have seen the development of new and improved deodorants and antiperspirants. The value of glycerine in such preparations is well indicated in the statement[3] that, in the formulation of antiperspirant creams, a great deal depends upon the humectant. A vanishing cream base is considered most desirable because it is not greasy and may be rubbed quickly into the skin. However, the cream itself must be protected against drying out to avoid crystallization of the astringent salt.

It is understandable, therefore, that glycerine is used as a humectant in antiperspirant creams based on aluminum chlorhydroxide complex (Chlorhydrol, Rcheis)[18], aluminum sulfamate[19], and zirconium salts[20]. Illustrative of such applications is the following formula[21] for an antiperspirant cream:

Glyceryl monostearate (Tegacid Regular, Goldschmidt)	20.0	parts
Glycerine	3.0	"
Spermaceti	5.0	"
Chlorhydrol	20.0	"
Water	52.0	"

Mix the glyceryl monostearate, glycerine, spermaceti and water and warm with agitation close to the boiling point. Stir until cooled to between 30 and 40°C., then add the Chlorhydrol and continue agitation until thorough solution and distribution is obtained.

Glycerine is also recommended in antiperspirants and deodorants based on the newer antibacterial agents, such as Sindar's Compound G-4. Illustrative is the following formula[22] for a modern deodorant cologne:

Compound G-4	0.2	part
Alcohol No. 40	75.0	parts
Glycerine	10.0	parts
Perfume	0.8	part
Water	14.0	parts

The introduction of new cosmetic raw materials is frequently an indication for the further expansion of glycerine's utility. This has been the case, for example, with newer substances like cera emulsificans, egg oil, alginates, isopropyl myristate, and cholesteryl ethers.

Cera emulsificans, B. P., or emulsifying wax, as it is commonly known in England, is finding increasing use as an oil-in-water emulsifying agent for pharmaceutical and cosmetic products. It is available in this country as Ceramol (Aceto Chemical Co.). In his comprehensive review on this comparatively new material, Wells[23] has presented a number of formulas that illustrate the value of glycerine as a conjunct ingredient. Thus, a basic vanishing cream formula is as follows:

Cera emulsificans (commercial)	15-5	per cent
Spermaceti	5-15	" "
Glycerine	7-0	" "
Water	73.0	" "

Egg oil, a purified substance that embodies all the outstanding emulsifying properties of eggs without the dangers of spoilage, is also useful in the production of a number of pharmaceuticals and cosmetics[24]. Typical of the glycerine-containing products based on egg oil is the following for a brushless shaving cream:

Egg Oil	3.0	parts
Stearic acid	16.0	"
Mineral oil	9.0	"
Glycerine	5.0	"
Triethanolamine	1.8	"
Borax	1.8	"
Water, to make	100.0	"

Although they are not new raw materials, the alginates have come in for added interest during recent years[25]. Glycerine has long proved its worth in the formation of smooth products with this agent and this action is utilized in modern alginate products, like the following cleansing cream:

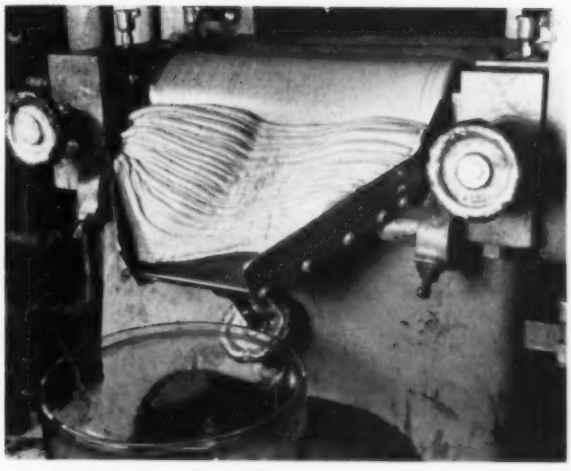
Sodium alginate	18	parts
Glycerine	20	"
Triethanolamine	18	"
Stearic acid	135	"
Liquid petrolatum	290	"
Perfume and preservative		sufficient
Water, to make	1,000	parts

According to Pears[12], isopropyl myristate is representative of a group of esters with great potentialities in cosmetic formulation. In discussing the uses of this material, he presents a number of preparations in which glycerine is a helpful adjunct. In addition to the solid cologne previously cited, he presents glycerine-containing formulas for day and hand creams. The hand cream is made from:

Stearic acid	5.0	parts
Oleic acid	1.5	"
Cetyl alcohol	0.5	part
Lanolin	1.0	"
Almond oil	5.0	parts
Isopropyl myristate	10.0	"
Triethanolamine	1.2	"
Glycerine	5.0	"
Water	70.8	"
Preservative		sufficient

In his patent specifications, Terkel[26] describes the improvements in emulsifying properties and in the texture and smoothness of the skin resulting from the use of cholesteryl ethers, such as dicholesteryl ether. Among his examples of cosmetic creams that make use of this material is the following glycerine-containing vanishing cream:

Stearic acid	22.0	parts
Cocoa butter	1.0	part
Potassium hydroxide	0.9	part
Mineral oil	2.0	parts
Glycerine	10.0	parts
Dicholesteryl ether	2.0	parts
Perfume	0.6	part
Water, to make	100.0	parts



Above, color mass on roller-mill in Evans Chemetics laboratory, duplicating plant conditions.

It is obvious that the foregoing offers only a few examples of glycerine's utility in improving modern cosmetic formulations. Many other examples might be cited but those given illustrate that the usefulness of glycerine in cosmetics will increase as new raw materials are introduced and new products are placed on the market.

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Customers Change

IT seems to me that we cannot effectively educate the consumer to change, whether to a new product, a better product or a higher standard of living, until we understand the changes that have already been brought about within the consumer himself. We can't "sell" him, in other words, without having a pretty clear idea as to what he's like today, what he thinks and what he wants.

The better we know and understand the people who make up our markets, the more likely we are to be effective in our advertising and sales approach. And we can't afford to "fly blind" where human attitudes and desires are concerned.—*R. S. Donaldson, Ford Motor Co.*

Detection of N.N-Dimethylaniline in Esterification-Reactions

KURT KUKLA*

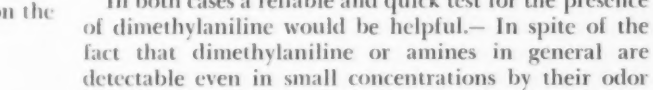
IN esterifying sensitive alcohols such as tertiary and terpene alcohols, when the reagent acid anhydride is not readily available or is a solid, the acid chloride and a tertiary base may be applied.— N,N-dimethylaniline is commonly used in place of other tertiary bases as pyridine because it has advantages in this process such as easy recovery.— After the ester is formed a cold dilute aqueous solution of a mineral acid usually sulfuric acid—is gradually added to the reaction product.— The aqueous layer containing the largest part of the dimethylaniline as its sulfate is then separated.— It is absolutely necessary that the final product is free from the tertiary base.— Otherwise traces of the base which might be hardly noticeable at first will cause discoloration and an off-odor will intensify after some time.—

The tertiary base may be removed in two ways:

1.) Repeated treatment of the reaction product with a dilute aqueous mineral acid.—

2.) Careful fractionation.—

In both cases a reliable and quick test for the presence of dimethylaniline would be helpful.— In spite of the fact that dimethylaniline or amines in general are detectable even in small concentrations by their odor a chemical test is more exact and therefore preferable.— Advantage can be made of the ease with which dimethylaniline forms colored derivatives.— The test adapted for the detection of traces of dimethylaniline is based on the oxidation of this amine to N.N.N'N'-



tetramethyl-benzidin which in acid solution forms a water soluble orange yellow compound (1)

If successive washings with aqueous sulfuric acid or hydrochloric acid are used for the removal of the amine, 1-3 drops of a saturated aqueous potassium permanganate solution added to approximately 15 cc. of the wash layer will produce within 15 seconds the orange yellow color in the presence of dimethylaniline.— If fractionation is the preferred method for the removal of the base the various sections can be tested for the presence of the amine by shaking 10 cc. of the organic product with 15 cc. of a 5% sulfuric acid solution and adding 1-3 drops of the permanganate solution to the separated aqueous acid part.—

Another application of this test is in the generally adapted method to determine the linalool content in oils as follows: The linalool is acetylated with acetyl chloride and dimethylaniline in the presence of acetic anhydride (2) Then the dimethylaniline is removed from the reaction mixture by successive washings with 25 ml. portions of a 5% sulfuric acid solution before saponification analysis of the ester.— Instead of testing the separated acid layers for the presence of the amine by liberating it with an excess of caustic as advised by

* Fritzsche Brothers Inc. Clifton, N.J.

1.) Willstaetter and Kalb. B.37.3765.

2.) Scientific Section, Essential Oil Assoc. of U.S.A. E.O.A. No. 1.

the EOA, the above permanganate-oxidation-test can be advantageously applied replacing an olfactory observation.—

Dimethylaniline present in a concentration of -.004 parts in 10 cc. of an oil could be detected by this test.—

Importance of Color

COLOR can mean the difference between "no sale" and the ringing of a cash register. To stimulate consumer reaction to a buying pitch the keynote colors of packages should reflect the public's color preferences.

A recent study of color preference in packaging shows that harmonizing colors rather than complementary contrasts are most effective in creating a desire to buy.

For impulse and mass market items, the primary hues —red, yellow and blue—in that order are best to produce sales, according to George Ingle. As the price increases and/or style becomes a more important factor, the consumer tends to choose the pastels and more subtle hues.

"Although colors tend to become standardized in relatively narrow ranges at any given time." Ingle went on, "color preferences run a cyclic pattern over a period of time. Blue is somewhat dormant now but can be expected to have a sharp rise in popularity."

For many packaging applications, particularly those for mass market merchandise, plastic materials are most suitable because they can be obtained in a wide variety of colors and can combine the two merchandising virtues of transparency and color. For selected packaging applications plastics can run the gamut from transparency through translucency to opacity.

Color preferences originate in the high fashion markets. Screened by the sales process a few colors will persist to find large volume acceptance in the mass market.

If greater sales are to be realized we must make effective use of the 'big gun'—the psychological effect of color on the consuming public.—*George Ingle.*

Salesmanship

THERE are many kinds of salesmanship. Some are very subtle, some endure, some die aborning. But wherein the salesmen sells himself, along with his merchandise, customers stick and follow him from mousetraps to locomotives.—*Frank Tripp.*

The Important Package

IT happens every morning of the five-day week. Maybe oftener. A salesman is preparing to call on a new prospect. Big order's coming up. Does he hope to land it? One guess.

The salesman steps forth in a well pressed suit, freshly buffed shoes, immaculate shirt, tasteful tie.

The knife-edge crease won't write an order. Neither will the haberdashery, or the polish. But any member of the briefcase brigade will tell you that appearance does count. Especially when he shakes hands with a brand new prospect. At that moment he's more than an individual. He's representative of the products he sells, the plant where it is made, and the people who make it. If he looks good, they look good.

The package has been called a silent salesman for the product it contains. If appearance is important to a flesh and blood salesman, it is much more so to the package.

To do a good selling job, every detail of the package must suggest quality of contents, ease of usage for the consumer, protection of the product until all is used. The package must look right and be right from the bottom to the top.—*Phoenix Flame.*

Cosmetic Excise Tax Collections

COSMETIC excise tax collections in 1952 and 1953, and through May, 1954 are given in the following table:

	1954	*1953*	*1952*
January	$ 8,147,000	$13,123,480	$11,547,853
February	29,489,000	13,859,961	14,338,420
March	1,957,000	7,805,077	7,248,879
April	6,503,000	9,236,101	8,218,865
May	20,733,000	9,286,470	9,174,622
June		8,875,000	8,253,649
July		9,996,000	9,357,443
August		5,964,000	8,849,488
September		370,000	8,523,241
October		8,204,000	8,439,370
November		19,912,000	7,878,976
December		536,000	10,432,117

It may be noted that cosmetic tax collections beginning with September, 1953 appear to follow an irregular course. This is due to the change in the system for collecting these taxes on a quarterly instead of on a monthly basis.

Are Time Clocks Necessary?

ARE time clocks necessary? Certain that time clocks' disadvantages outweigh their advantages, the Parker Pen Co. began a test in 1950 to see whether they could be eliminated. Small groups started using filled-in hand written time cards each day. A careful check was kept on the new program. Supervisors were made responsible for determining whether or not employees were leaving their work stations before quitting time. However, as the plan worked out the role of the supervisor in this respect has proved to be practically unnecessary. Employees have fully recognised that their honor is at stake, and the new plan has such backing among the workers that the few who may try to take advantage of it must face criticism from the group. Because of the resultant boost in employee morale certain other benefits have accrued. Tardiness dropped 47% the first year and 33% the second year and no longer do employees leave their jobs up to five minutes early to line up at the time clock at quitting time.—*NWDA Executive Newsletter.*

Simple

Floral Perfumes

Natural laws and patterns . . . Old style compounding . . . Simple floral elements . . . Some indispensable aromatics . . . Selection of floral odors

E. S. MAURER, F.C.S., M.R.I.*

Edmund F. Buryan of Revlon International Corp., New York, samples one of the smells from Messrs. A. Boake Roberts & Co.'s Library of Smells exhibition stand.

OCCASIONAL recourse to a dictionary is a useful process, for thereby an idea is often engendered which, by association, can be suitably expanded. For instance, on turning to "perfume," one is reminded that the noun defines a substance which emits a sweet odour, an agreeable scent or fragrance; while the verb suggests an ability to fill or impregnate with a grateful odour—grateful in the sense of affording pleasure—and, regarding "scent," this agrees with fragrant, as diffusing an agreeable perfume or sweet smell.

Such an observation may, of course, be somewhat commonplace, but the point I wish to make is the emphasis upon sweetness and the absence of any floral connotation.

My choice of the title of this paper has been prompted partly as a complement to my previous remarks upon "Non-Floral Perfumes" which appeared in the November 1952 issue of this journal, and also to afford me an opportunity of recording some observations on the natural flower odours, in contradistinction to what may perhaps be termed the modern "Complex Floral Perfumes."

However, before developing a theme upon the elementary florals, I think it opportune to review quite briefly the background of the literature, rather than to append a mere sequence of references. I have, therefore, taken as a source-book Edward Sagarin's "Science and Art of Perfumery," because its Appendix "A" constitutes a very concise bibliography.

In the 130 or so books quoted in this reference it is noted that most of them are devoted to the technical study of the production, chemistry, constituents and analytical data concerning the essential oils; while a smaller selection is composed of the various recipe-books dealing with the manufacture of perfumes, toilet waters and cosmetics, I find, however, that among this collection there are apparently only three important volumes which treat in any detailed fashion with the theory and practice of composing a perfume, namely, Winter's "Riechstoffe und Parfümierungstechnik" (Vienna, 1933), Wagner's "Die Parfümieindustrie (Halle, 1928), and the "Formulaire du Chimiste-parfumeur et du savonnier" of R. M. Gattefossé (Paris, 1932). These texts, in turn, are chiefly of interest to the advanced practitioner and obviously cover much ground with which, naturally, he is already familiar.

For the tyro perfumer, however, there does not seem to be available any "Elements of Perfumery" comparable to the many primers upon harmonics in music, or the application of the principles of colour combination, written for the benefit of art students.

I am fully aware that, in respect to this lacuna, there is a reason for a certain amount of reticence. Nevertheless, I should like to put on record some observations upon what I venture to term the "mechanics of perfumery," as I think that collectively these should prove of general interest and, moreover, capable of individual interpretation and adaptation.

The Work of Septimus Piesse

In an endeavor to find a suitable point of departure I considered it expedient to turn to what is probably the widest-known of the earlier texts of our subject, namely, the "Art of Perfumery" of Septimus Piesse. Bearing in mind the wealth of information contained therein, I am of the opinion that this work is fully entitled to the appellation of the "Perfumer's Bible," especially as it has also been made available in French, German and Italian, and it would seem that almost every author of similar works appearing during the

* Chief chemist, A. G. Hersom, Kingston-on-Thames, England. Reprinted from the Journal of the Society of Cosmetic Chemists Vol. IV, No. 3, Nov. 1953, pp. 179.

past three or four decades has formulated his contribution upon the Piesse pattern, namely by including an introductory *materia aromatica* and following this by recipes or prescriptions for the "dispensing" of floral and bouquet perfumes, and concluding with a toilet and cosmetic formulary.

I am strongly of the opinion that the point of outstanding interest of this work (although it is now nearly a century since the first edition of the "Art" appeared in London in 1855) is that the sum total of the common knowledge of his time which Piesse recorded covers such an extensive background.

Bearing in mind the date just mentioned, it should also be of interest to those who have not had an opportunity of examining this text, which is becoming somewhat difficult to acquire, to appreciate something of the underlying artistic technique of this "Master of Perfumery" in handling the simple florals, for he says: "Scents, like sounds, appear to influence the olfactory nerve in certain definite degrees. There is, as it were, an octave of odours like an octave in music; certain odours coincide, like the keys of an instrument. Such as almond, heliotrope, vanilla and clematis blend together, each producing different degrees of a nearly similar impression. Again, we have citron, lemon, orange peel and verbena, forming a higher octave of smells, which blend in a similar manner. The analogy is completed by what we are pleased to call semi-odours, such as rose and rose-geranium for the half-note; petitgrain, neroli, a black key, followed by fleur d'oranger. Then we have patchouli, sandalwood and vetivert, and many others running into each other."

In the fifth edition, which appeared in 1891, there is added an interesting inset taken from the *Chambers' Journal* review of the first edition:

"We know that music depends upon a fixed mathematical law, not invented by man, but existing in Nature. Nature is not a prodigal in her operations—she is no waster of power; the better she is understood, the more simple she appears; and there is nothing, therefore, contrary to sound reason in the idea that the whole of the pleasures of the sense of smell will be found to depend upon cognate laws."

Natural Laws and Patterns

As an apt corollary to this opinion, I have found a very significant paragraph in a volume of modern nature stories, entitled "Pan's Garden," the author, Algernon Blackwood, in the essay on "Sand," saying:

"Life, using matter to express itself in bodily shape, first traces a geometrical pattern. From the lowest form in crystals, upwards to more complicated patterns in the higher organisations—there is always first this geometrical pattern as skeleton. For geometry lies at the root of all possible phenomena; and is the mind's interpretation of a living movement towards the shape that shall express it."

Should the reader be curious enough to seek some corroboration of this idea, I think that the most remarkable example to be found in nature is that recorded by Thoreau in the "Spring" chapter of "Walden, or Life in the Woods" (1845), where the author takes several pages to describe the geometrical forms which thawing sand and clay assume in flowing down the sides of a steep embankment, and concludes, even before reaching the end of his argument, that: "You

	Rose	Jasmin	Neroli	Tuberose	Cassie	Vanilla	Violet	Orris	Jonquil	Tonka	Almond	Bergamot	Clove	Units
	1	2	3	4	5	6	7	8	9	10	11	12	13	
1 Carnation ...	x	x	x	x	x	x							x	7
2 Frangipanni ...	x		x	x		x	x		x					6
3 Heliotrope	x	x	x	x		x					x			6
4 Honeysuckle ...	x	x		x	x		x					x		6
5 Lilac	x	x	x	x	x	x		x						7
6 Muguet	x	x	x	x	x	x	x				x			8
7 May Blossom ...	x	x	x		x	x			x	x				7
8 Narcissus	x	x		x			x		x					5
9 New Mown Hay ...	x	x	x	x		x		x		x				7
10 Night-Scented Stock	x	x	x	x	x	x	x	x	x					9
11 Stephanotis ...	x	x	x		x		x					x		6
12 Sweet Pea	x	x	x	x	x	x	x		x					8
13 Trefle	x		x	x						x			x	8
14 Violet	x	x		x	x		x	x				x		7
15 Wallflower	x	x	x		x	x	x	x		x	x	x		9
Frequency ...	15	13	12	12	10	10	9	5	5	5	4	2	2	103

Table I—Composition of the Victorian floral perfumes.

Oliver Marton and Steve Joffre: through perfumer's art and scientist's skill, a new product.

will find thus in the very sands an anticipation of the vegetable leaf. No wonder that the earth expresses itself outwardly in leaves; it so labours with the idea internally. The atoms have already learned this law, and are pregnant by it."

In concluding this digression, I feel that, although these impressions are admittedly subjective, yet they may perhaps have some direct bearing upon my suggestion of the "mechanics of perfumery," because it is obvious that something must be known about the component parts before there can be any understanding of the whole built from them.

I would add, however, that although I have not arrived at any finite opinion, yet if one pauses to reflect, it is always on some imaginative impression that the more solid foundation of facts is based, and from Dalton's "symbols" for the chemical elements or the perception of Kekulé of the graphic function of the hexagon, much has subsequently evolved. Even as a result of practical work I have come to the conclusion that, in the simple and compound asterisk forms of the snowflake and the ground plan of floral architecture observed in the diagrams of botany, a similar centre-to-circumference or radial stellar format is expressed, and from such sources patterns are available which lend themselves to a harmonious presentation, and therefore a deeper understanding, of the grouping of sweet scents, blossom perfumes and "fragrances" in general.

Reverting, however, to Piesse—we find him continuing his theme, by remarking: "From the odours already known, we may produce, by uniting them in proper proportion, the smell of almost any flower, except Jasmin." He further adds a paragraph which I think is of considerable practical importance: "The odours of some flowers resemble others so nearly, that we are almost inclined to believe them to be the same thing. . . ."

Regarding the average components of a perfume composition to-day, we have perhaps become accustomed to the position in the formula of the support afforded by the isolates and synthetics to the natural essential oils and flower absolutes, so that we can note with interest the comment made by Marcel Billot (see *Soap, Perfumery and Cosmetics*, January 1949) that, in bygone days, with only five or six elementary floral tones, the perfumer nevertheless managed to reproduce the complete gamut of the floral odours.

Obviously the recipe-books dealing with the "manufacture of perfume for the handkerchief" should provide some idea, upon examination for name and frequency, of these floral primaries; hence I have been able to produce a useful collation by abstracting from Piesse (1885) and such later texts as "Perfumes and their Preparation," by G. W. Askinson (1907); strangely enough, from the almost wholesale collection to be found in Erich Walter's "Manual for the Essence Industry" (1916) as also from the "Preparation of Perfumes and Cosmetics" of J. P. Durvelle (1923), and finally from the practical résumé in the *Chemist and Druggist's* "Pharmaceutical Formulas" (10th edition, 1934).

Old-Style Perfumery Compounding

It must be observed, however, that the technique of the "Victorian" perfumer was based upon the blending of *extraits* or spirituous solutions made from such floral pomades as cassie, jasmin, jonquil, mignonette, rose, tuberose, and violet, which affords some idea of the front line materials then available.

As fortifiers, there were also the "essences" or "spirits," these being alcoholic dilutions of various percentages of such items as rose otto, neroli petales, rose geranium and other essential oils, and finally there was also available such apothecary's tinctures as ambergris, benzoin, civet, myrrh, vanilla and tonka.

In marked distinction to certain aspects of the present day technique for the production of quickly matured perfumes and toilet waters, in which the concentrate is committed to raw or slightly pre-fixed spirit, the perfumer of the "eighties" had to expend considerable time over the preparation of these extracts,

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so that the subsequent blending was performed with well-matured dilutions and suitably-aged tinctures; hence the tonal purity and beauty of these "triple extracts" (as they were often termed) when compared with some examples of conglomerates, merely provided with an alcoholic vehicle, which are encountered to-day.

From my gleanings among the Victorian simple floral handkerchief perfumes, as epitomised in Table I, several points of outstanding interest emerge. In the first instance, the listing comprises a representative collection of what may be termed the "popular" florals. I reiterate "popular" because it must be recollected that in the early Victorian era, valentines, panoramic birthday and other greetings cards, birthday date books, autograph albums, oracular dream-books, silk handkerchiefs and scarves were illustrated, embellished or embroidered with chosen floral motifs. Furthermore, with the items comprising the "typical" as well as the "by special request" bouquets from the florist—all these affairs, including the "ladylike" accomplishment of painting on glass and china—were virtually governed by the prescribed ritual of *Floral Symbolica* or the "Language and Sentiment of Flowers," which exercised a really serious influence upon the social activities of the town-and-country ladies of that period.

Some idea of the importance of these observances can be gleaned from the fact that the "Floral Vocabulary" was represented by over a hundred domestic and wild flowers, fragrant or odourless, each with a specific "meaning," while the combination of flowers and leaves, shaped into suitable emblematic garlands, required a code-book of over eight hundred entries to assemble, and also to enable the recipient to interpret the meaning.

It is noticeable (oddly enough) that among these perfume recipes there are certain glaring omissions, notably syringa, lavender, hyacinth, clematis, etc., as these would appear to have been "unpopular" because of their association with dolefulness, melancholy, grief and other unhappy conditions.

The Rose/Jasmin/Neroli Triad

This seems a convenient place to introduce what I should like to see described as Perfumery Postulate No. 1: this comes from *The Givaudanian*, for in an issue dated May 1938, under the heading of the "Role of the Orange-blossom Odour in Perfumery," it is stated that "there is hardly a perfume in which the combination of Rose, Jasmin and Orange-blossom, in some form or other, is not either basic or a necessary adjunct."

On referring to the listing of the selected fifteen popular perfumes it may be remarked that the dictum of Marcel Billot regarding the five or six elementary floral units necessary for the construction of a wider gamut, is justified, and furthermore, from the frequency factor, it is seen that the position of the rose, jasmin, orange-blossom trinity is maintained, supplemented by the introduction of the new tonal values of tuberose, cassie and violet.

Viewed from another angle, it is observed that the change-ringing for the evolution of these fifteen florals depends upon seven extraits, three tinctures and three essential oils—the tinctures being selected for odour value—disregarding (for the purpose of this table) such fixative tinctures as benzoin, civet or musk.

Piesse's remarks upon the close resemblance of certain flower odours to one another also finds acceptance when we compare the fundamentals, for instance, of honeysuckle and narcissus; of lilac and muguet; or of night-scented stock and wall-flower; and it is particularly at this point that the skill of the perfumer is applied to the component proportions, increasing or decreasing each item until a harmonious and characteristic balance is achieved.

Furthermore, a second important point emerges, bearing in mind that the odour strength of the extraits is virtually that of the finished product; this being the deliberate addition of a small quantity of a relatively strong osmophore to "turn the note" and thus complete the floral simulation.

In these days we accept the function of the topnote as a matter of course. Nevertheless, I think it is a matter of historical interest to observe when and how usage was first made of such strong fortifiers as benzaldehyde (almond), linalyl acetate (bergamot) and eugenol (clove).

The florals as presented in Table I are, however, end-points, and the five or six basic components which, by variation, constitute the major portion of the make-up of the individual items, also represent the basis for a further chain of permutations, which if extended begins to approach unwieldy dimensions. It is, therefore, preferable, in my opinion, to seek for the basis of the simple floral perfumes, something not so elaborate, although at the outset the combination must present more scope than the limited permutation on three items used in equal proportions: it would therefore seem that the ideal number of basic floral-elements which, by equi-mixture, will provide a set of transitions not too cumbersome for laboratory checking, would be limited to six units.

I have remarked that the informative catalogues issued by several of the prominent American perfumery houses, indicate in the foreword an alignment for practical purposes of a comparatively short list of principal odours, examples of which are shown in Table II (my arrangement), but it will be observed that the grouping suggested by the E.I. du Pont de Nemours Company also includes secondary items of similar basic tonality.

It is upon such a listing that several versions of simple floral foundations can be based and, moreover, easily modified or altered in accordance with the perfumer's personal inclination, but because I believe that the arbitrary "temperature scale" which we accept—somewhat loosely, perhaps—in describing certain odours as having a warm quality, others being regarded as cool, green or fresh, to be of far greater importance in perfumery composition than is generally realised; it will be noted that I have divided my list of basic florals into two groups:

(3) Jasmin (5) Neroli (9) Rose (warm)
(13) Violet (17) Lilac (21) Lily (cold).

Note: (The numbers in brackets refer to the position which I have allocated these blossom odours in a more elaborate 24-unit "floral spectrum," to be considered in a concluding paper upon "Compound Floral Perfumes." Meanwhile, these indices serve as a useful check when positioning the permutations.)

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Here I should like to pay tribute to two of the most informative papers I have in my file, namely, the contributions of Ruemele, the first upon "Variations of the Chypre Fragrance" which appeared in the *P.&E. O.R.* for May 1950, and the second entitled, "The Jasmin-Rose Bouquet and its Development" (*ibid.*, March 1951), because from here onwards in this present article, my approach to the "mechanics of perfumery" would have tended to appear merely as an enlargement of the three-fold component scheme as already outlined by the above mentioned author.

I have also noticed with considerable interest that, in many of the more detailed perfumery catalogues, there is no hesitation in describing the nature of compounds and bouquets listed under a fancy name or serial number, as such data affords the potential user ample guidance and aids the selection of a blend suitable for a particular class of product. For instance, such descriptions as "a jasmin-lily-rose complex, with a lifting top-note," or "a floral French-type bouquet based on lily, lilac and rose, slightly aldehydic," are very helpful, as the perfumer can at once recognize the pleasing tonality of such harmonious combinations.

Upon reflection, however, it would seem that there should be an almost endless series of three-fold permutations, though strangely enough the useful list is much shorter than one might imagine and several restrictive features are encountered.

The Color-Blending Analogy

The first is incongruity*. For instance, I doubt whether a complex of rose, lilac and violet would find ready acceptance, although this represents the elements of the Freesia perfume; but I feel that I can make my point more easily by drawing upon the analogy of colour. By this I do not imply any actual linking of a colour with the name and odour of a blossom. It is, of course, a matter of common knowledge that from the intermixing of pigments or solutions representing the three primary colours—yellow, red and blue, the secondary shades of orange, green and violet are produced; but little attention seems to have been paid to the admixture of the primaries and secondaries, the number of chromatic units from these which are utilised in the evolution of the three tertiaries, or even the names and actual shades of these triads. However, it is found that:

Yellow plus violet = citrine, a dull brownish green.
Red plus sea-green = russet, a dull rust-brown.
Blue plus orange = olive, a dull bluish green-grey.

These chromatic additions are not haphazard, but are based upon the arithmetical proportions of the primaries necessary to produce, as a final end-product, the theoretical "optical black." Hence the exact proportions of the basic hues can be calculated and graphs constructed, from which it is a simple matter to compute the admixture required for the production of such between-shades as mandarin-orange or turquoise-blue. As will be seen from Table III, a very important point emerges, namely, that there are no less than four alternative routes to each of the three tertiary shades. Incidentally, these are dull and sombre hues and a sharp contrast to the bright secondaries and luminous primaries.

Table III

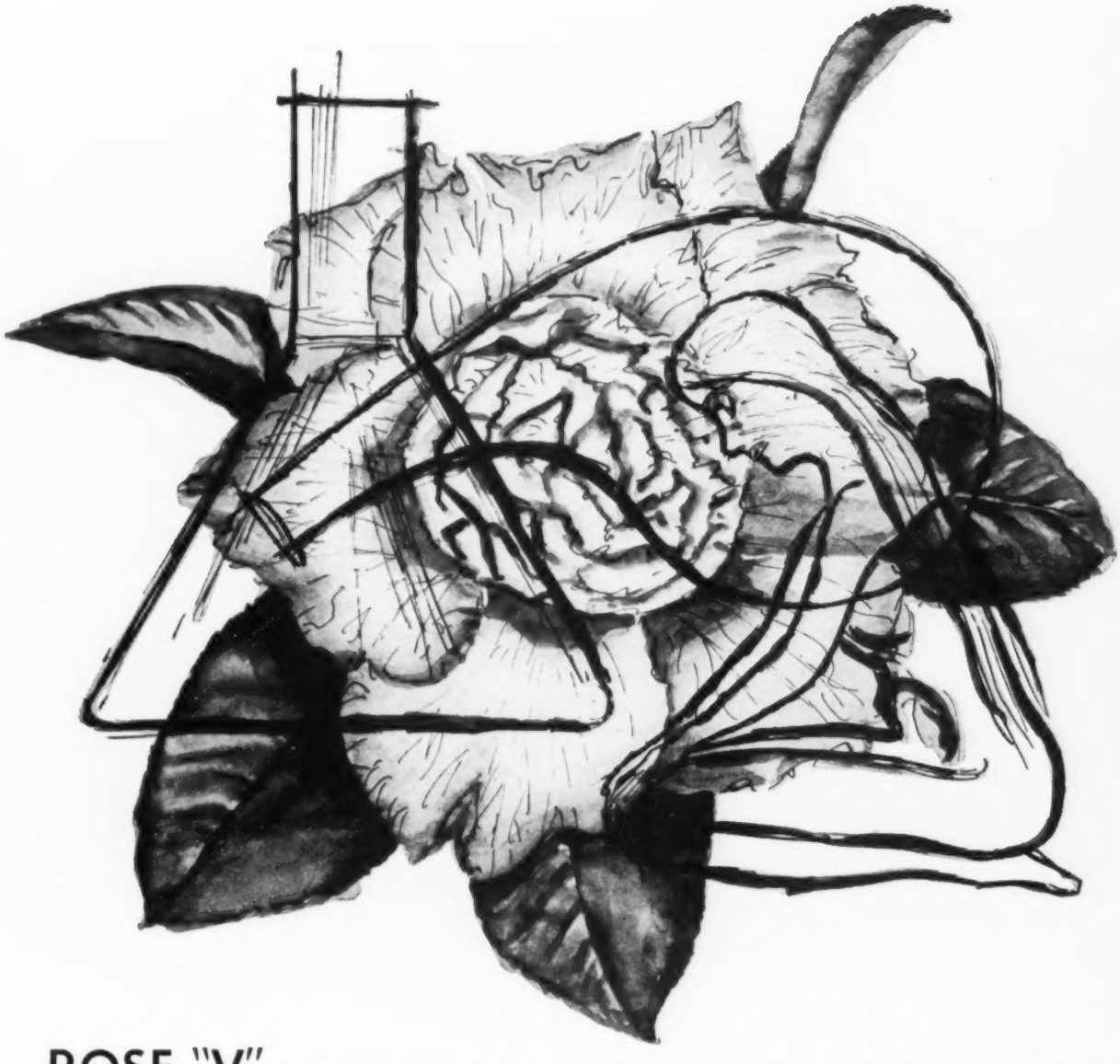
Citrine	=	Yellow	plus	violet
		Orange	,,	sea-green
		Leaf-green	,,	russet
		Tangerin	,,	olive
Russet	=	Red	,,	sea-green
		Orange	,,	violet
		Magenta	,,	citrine
		Mandarin	,,	olive
Olive	=	Blue	,,	orange
		Sea-green	,,	violet
		Turquoise	,,	russet
		Purple	,,	citrine

In our elementary simulations of the six *Basic Blossom Odours*—jasmin, neroli and rose, violet, lilac and lily, we select various proportions of the following group of isolates and synthetics: phenyethyl alcohol, linalol, terpineol, hydroxy-citronellal, geraniol, citronellol, methyl anthranilate, benzyl acetate and ionone, of which at least *two* items must be used for each named floral. With portions of these various substrata common to several basic odours, the colour analogy

* or what Cerbelaud has called "olfactory incompatibility."—Editor.

Table II

The Basic Odours suggested by Albert Verley, Inc.	The Principal Groups of Odours recognised by E.I du Pont de Nemours, Inc.	
		Sub-Group.
(1) Jasmin	(1) Jasmin	... Gardenia
(1a) Gardenia		Gardenia
		Sweet-pea
		Honeysuckle
(2) Orange Flower		Orange blossom
(3) Rose	(3) Rose ...	... Carnation
(4) Violet	(4) Violet ...	... Cassie
		Mimosa
(5) Lilac	(5) Lilac ...	... Syringa
		Hyacinth
(6)	(6) Lavender	
	Fougère	
	Chypre	
(7) Lily-of-the-Valley	(7) Lily-of-the-Valley	... Cyclamen
(8) Ambre	(8)	



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explains (at least to my satisfaction) certain aspects of the frequently encountered phenomena of odours "cancelling-out," the production of toneless nondescripts, and the devious approaches that may be made towards achieving a specific type of perfume. In fact, I think that the alternative routes to the tertiary colours provide a striking parallel with the matching of a perfume, whereby two or more workers using different raw materials will arrive at an end-point, not necessarily exact, but fundamentally in agreement, between themselves and the original.

Simple Floral Elements

We have seen from Table I that the members of this group of ancillary or secondary blossom odours are aggregates, built upon a substructure of primary fragrances and, in certain instances, usage is made of the judicious inclusion of strong osmophores. It is, therefore, at least instructive to attempt an investigation into the behaviour upon alignment of these perfumery "radicals" in order to learn what is evolved osmically, the extent of the permutations and, finally, whether or not there emerges from these combinations any regular aromatic grading or progression.

For the purpose of the construction of Table IV, it is assumed that we have available the six "radical perfumes," namely:

(3) Jasmin (5) Neroli (9) Rose (warm)
(13) Violet (17) Lilac (21) Lily (cold)

of such a quality that these odours would be recognised without hesitation by any audience; these perfumes being approximately of the same odour strength and combined at first in equal proportions. The numerical indices are retained as a check against repetition; therefore in the first column of Table IV we have observed the mechanism of the permutations.

It is, however, of vital importance to pause here and first examine the outcome of the initial interblending which gives the diads, observing in passing that we have no descriptive nomenclature in perfumery to name the outcome of such simple odour combinations, although we know, from those who possess any measure of artistic feeling, that chords in music and colour-blending with only two components are for the most part æsthetically unsatisfactory. Exactly how far this analogy can be extended to perfumery depends, I believe, on what can be deduced from Table IV. From this it will be seen that from six components, fifteen combinations are possible, but it is probable that the only useful conclusion which can be drawn is that some couplings (for instance, jasmin-violet, neroli-violet and rose-violet) are harsh and contrasting, and the violet elements seems to be in more harmonious conjunction with lilac and lily.

Furthermore, jasmin and neroli, in alignment with rose, give warm and quiet tonalities, while the lilac-lily grouping may be regarded as an agreeable presentation of cool, quiescent odours. After due consideration, however, I think it more profitable to consider the formulation of the triads, in accordance with Table V, which, it will be noted, commences with a combination of the "warm" (and postulated) radicals—jasmin, neroli and rose.

The change-ringing mechanism proceeding until the finality of the "cool" elements—violet, lilac and lily—is reached, is effected, it will be noticed, in the comparitively short span of twenty movements.

The final column of Table V is headed "Basic Odour Type," certain items in which are subsequently commented upon, but I would remark that this odour description should be regarded as tentative, in the same way in which, for instance, an aromatic chemical called

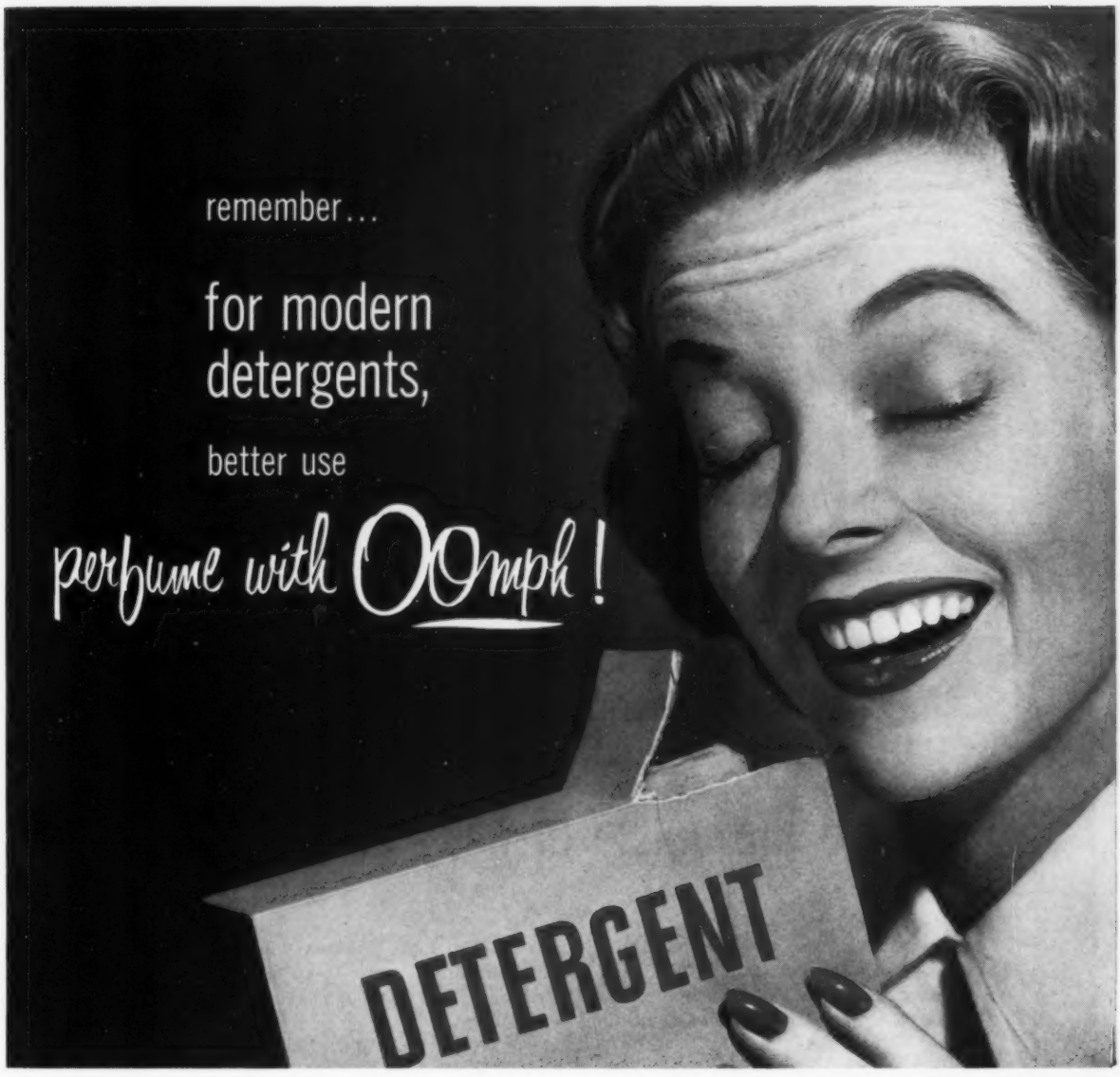
Right: Table V—The triads, or combination sequence of floral elements. Index refers to descriptions of basic odour types, which will appear in next month's issue.

Below: Table IV—The diads, or combination sequence of floral elements

The Elements: (3) Jasmin (5) Neroli (9) Rose (warm) (13) Violet (17) Lilac (21) Lily (cold)

3/5	Jasmin-neroli	(w)	
3/9	Jasmin-rose	(w)	
3/13	Jasmin-violet		
3/17	Jasmin-lilac		
3/21	Jasmin-lily		(5)
5/9	Neroli-rose	(w)	
5/13	Neroli-violet		
5/17	Neroli-lilac		
5/21	Neroli-lily		(4)
9/13	Rose-violet		
9/17	Rose-lilac		
9/21	Rose-lily		(3)
13/17	Violet-lilac	(c)	
13/21	Violet-lily	(c)	(2)
17/21	Lilac-lily	(c)	(1)
		Total :	... (15)

	Key	Index	Grouping	Basic odour type
1	3/5/9	A	Jasmin-neroli-rose ...	Honeysuckle
2	3/5/13	B	Jasmin-neroli-violet ...	Laburnum
3	3/5/17	C	Jasmin-neroli-lilac ...	Corylopsis
4	3/5/21	D	Jasmin-neroli-muguet ...	Magnolia
5	3/9/13	E	Jasmin-rose-violet ...	Candytuft
6	3/9/17	F	Jasmin-rose-lilac	Oleander
7	3/9/21	G	Jasmin-rose-muguet ...	Azalea
8	3/13/17	H	Jasmin-violet-lilac... ...	Rocket
9	3/13/21	I	Jasmin-violet-muguet ...	Paeony
10	3/17/21	J	Jasmin-lilac-muguet ...	Tobacco-flower
11	5/9/13	K	Neroli-rose-violet	Cerinthe
12	5/9/17	L	Neroli-rose-lilac	Apple Blossom
13	5/9/21	M	Neroli-rose-muguet ...	Wistaria
14	5/13/17	N	Neroli-violet-lilac	Lotus
15	5/13/21	O	Neroli-violet-muguet ...	Clematis
16	5/17/21	P	Neroli-lilac muguet ...	Cowslip
17	9/13/17	Q	Rose-violet-lilac	Freesia
18	9/13/21	R	Rose-violet-muguet ...	Daphne
19	9/17/21	S	Rose-lilac-muguet ...	Night-scented Stock
20	13/17/21	T	Violet-lilac-muguet ...	Cyclamen



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Over seventy scientific articles, mostly by independent researchers, have been published over the last ten years attesting to the antibacterial and deodorant performance of G-11.

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"methyl linalyl ketone" might be described as "recalling the odour of Mitcham Lavender."

A Literary Digression

In parenthesis, I would state that, as a basis for inspiration and the initial gathering of information for subsequent checking and enlargement, I acknowledge my indebtedness to the anonymous author of "Flora Domestica" (London 1823), and because the subject of "Scent in the Garden" is a somewhat elusive theme, I would add, for those who may care to extend their reading, that there is to be found in the *Journal* of the Royal Horticultural Society, contributions such as "Fragrant Leaves and Sweet-Smelling Flowers" (October 1898), up to the most recent paper upon "Fragrance in the Garden," which was reproduced in the August 1953 issue of *Soap, Perfumery and Cosmetics.*

In F. A. Hampton's "Scent of Flowers and Leaves" (1925) will be found a bibliographical appendix to each of the twelve chapters, which is a particularly useful guide; Maurice Maeterlinck's "Old-Fashioned Flowers" (1906) well repays a careful reading, but the abstracts of perfumery potential to be gathered from the "Pot-Pourri from a Surrey Garden" series by Mrs. C. W. Earle (1892-1914) can cover many pages of the commonplace notebook.

If to these is added a preliminary excursion through the "Alpine Flowers and Gardens," and also the "Flower Fields of Alpine Switzerland," by G. Flemwell (1911)—the subject begins to become highly specialized, particularly when, in conclusion, one turns to the grouping of chosen blossoms, not only for decorative display, but for the simultaneous blending of harmonious fragrances. It is here that this further vista is beautifully illustrated and appreciatively described by Ella and Florence Du Cane in the "Flowers of Japan" (1908).

It will therefore be noted that, in an expression of personal osmical sentiments, I have been guided by a theoretical consensus of opinion, sounded out by conversations with nursery gardeners, visits to Kew and the R.H.S. Gardens and, above all, by laboratory work and the finality of the smelling-slip.

To revert, however, to the theme of floral odour permutation, it will be seen from the initial presentation in Table V that the change-ringing simplifies itself to the arrangement shown in Table VI.

Table VI

I	Jasmin-neroli	4 versions		
	Jasmin-rose	3	,,	
	Jasmin-violet	2	,,	
	Jasmin-lilac	1	,,	10 units
II	Neroli-rose	3	,,	
	Neroli-violet	2	,,	
	Neroli-lilac	1	,,	6 units
III	Rose-violet	2	,,	
	Rose-lilac	1	,	3 units
IV	Violet-lilac	1	,,	1 unit
			Total:	20 units

Other rearrangements are possible, of course, but these tend towards partial shiftings and "mirror images" and do not show the simple numerical transition of the indices so clearly.

When, however, an attempt is made at a *cyclic* presentation of this data, as is seen in Table VII, then I think that something of the "mechanics of perfumery" can be observed as, for instance, with the forward movement of the ratchet and toothed wheel in a numbering machine, which concludes after a certain series of changes has been made and is then manually reset to commence a new sequence.

In this way I believe that a partial version of floral nomenclature for these three-fold basic odour combinations can be constructed, the medial and terminal elements of the first member of a progression becoming the initial and medial of the second, and so on. Thus, as with the twenty-one components of the Adjuvant cycle, as described in the previous article on the Non-Floral Perfumes, the resultant odour tone of any one group is linked to the preceding as well as the subsequent member.

From Table VII it is seen that the initial progression

Key	Index	Grouping	Basic Odour Type
3/5/9	A	Jasmin-neroli-rose	Honeysuckle
5/9/13	K	Neroli-rose-violet	Cerinthe
9/13/17	Q	Rose-violet-lilac...	Freesia
13/17/21	T	Violet-lilac-muguet	Cyclamen
17/21/3	J	Lilac-muguet-jasmin	Tobacco-flower
21/3/5	D	Muguet-jasmin-neroli	Magnolia
3/5/13	P	Jasmin-neroli-violet	Laburnum
5/13/21	O	Neroli-violet-muguet	Clematis
13/21/9	R	Violet-muguet-rose	Daphne
21/9/5	M	Muguet-rose-neroli	Wistaria
9/5/17	L	Rose-neroli-lilac...	Apple Blossom
5/17/21	P	Neroli-lilac-muguet	Cowslip
17/21/9	S	Lilac-muguet-rose	Night-scented Stock
21/9/3	G	Muguet-rose-jasmin	Azalea
9/3/17	F	Rose-jasmin-lilac	Oleander
3/17/13	H	Jasmin-lilac-violet	Rocket
17/13/5	N	Lilac-violet-neroli	Lotus
21/3/13	I	Muguet-jasmin-violet	Paeony
3/13/9	E	Jasmin-violet-rose	Candytuft
17/5/3	C	Lilac-neroli-jasmin	Corylopsis

Table VII—Cyclic version of Table V showing its progressions

Harvesting the flowers

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AND

Lavandin

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starting with (A) Jasmin-neroli-rose (Honeysuckle) proceeds by 17 steps to (N) Lilac-violet-neroli (Lotus) and then diverts to new combinations, namely, (I) Muguet-jasmin-violet (Paeony) and (C) Lilac-neroli-jasmin (Corylopsis), which also move forward by 18 and 17 stages respectively before concluding and showing further "left-over" combinations for similar consideration.

This procedure can, of course, be continued until the starting-point is again encountered, so no useful purpose is served by unnecessary enlargement upon these sequences. Two items of interest, nevertheless, emerge, namely, the parallel of gradual alteration in simple design, as is observed in the mechanics of weaving, in which, by the intermittent change of different coloured threads for the warp, a series of striped patterns are obtained and, further, it is noted that the "non-sequentials" from the first progression in Table VI (and from the second and third versions, not given here) represent a particularly intriguing series of blossom odours for the perfumer to exercise his skill upon, namely, (1) Paeony, candytuft and corylopsis; (2) Night-scented stock and laburnum, and (3) Azalea and rocket.

Before presenting the conclusions which I think can be drawn from the interweaving of the six basic floral odours, I would revert to the tertiary colours, citrine, russet and olive, because these are largely representative of the dull neutral background in Nature, and something akin to this neutrality I have experimental reason to think arises from the admixture of the "warm" and "cold" perfume elements and, although it may be agreed that our understanding of this arbitrary temperature rating is perhaps somewhat vague, this is probably due to the fact that we "sense" rather than "smell" the *quality* which we name as warmth or freshness; nevertheless this acquired ability serves a very useful purpose, as does litmus paper—it demarcates.

In the final rearrangement of my impressions of what is osmically evolved from basic odour admixture, as shown in Table VIII, can be seen what I believe to be true of the blossom perfumes in Nature—from the homely woodland plant, the domestic and cultivated

Table VIII—Showing the temperament and segregation into two major odor classes

The Jasmin-Rose Group			
3 warm units	A	Honeysuckle	
2 warm units and 1 cold unit ...	K	Cerinthe	
	D	Magnolia	
	B	Laburnum	
	M	Wistaria	
	L	Apple Blossom	
	G	Azalea	
	F	Oleander	
	C	Corylopsis	
	E	Candytuft	
The Violet-Lily Group			
1 warm unit and 2 cold units ...	Q	Freesia	
	J	Tobacco-flower	
	O	Clematis	
	R	Daphne	
	P	Cowslip	
	S	Night-Scented Stock	
	H	Rocket	
	I	Paeony	
3 cold units	T	Cyclamen	

The compounding of perfume is a science serving an artistic goal.

varieties to the tropical exotics—namely, that in the simplest terms these odours may be segregated into two major groups—the jasmin-rose and the violet-lily.

In parenthesis, regarding the great lily of the valley family, this includes such items as Solomon's seal, fritillary, star of Bethlehem, tuberose and asphodel. A further grouping of flowers almost as beautiful as the lilies comprises the amaryllids, of which the snowdrop is the simplest member, but in the more advanced group are the daffodils and narcissi, leading to the more complicated botanical structure of the crocus, iris and orchids.

Many varying lists of odoriferous flowering shrubs and plants can be compiled but, without being dogmatic, I have reason to think that the results, if a sufficient number of additional items are selected, will also show a close alignment with what I have already put forward.

Some Indispensable Aromatics

At this point it is opportune to refer again to Table I, because it has been seen that, among the several groupings, there is a considerable tonal similarity, until this is deflected by the addition of certain essential oils; likewise this is true with the items listed in Table VII, all of which can be enriched by a similar addition of *appropriate* essential oils, but more particularly with items from a relatively small collection of synthetic adjuncts, some of which are not found in Nature. In its simplest form the following compilation can be regarded as containing the indispensables:

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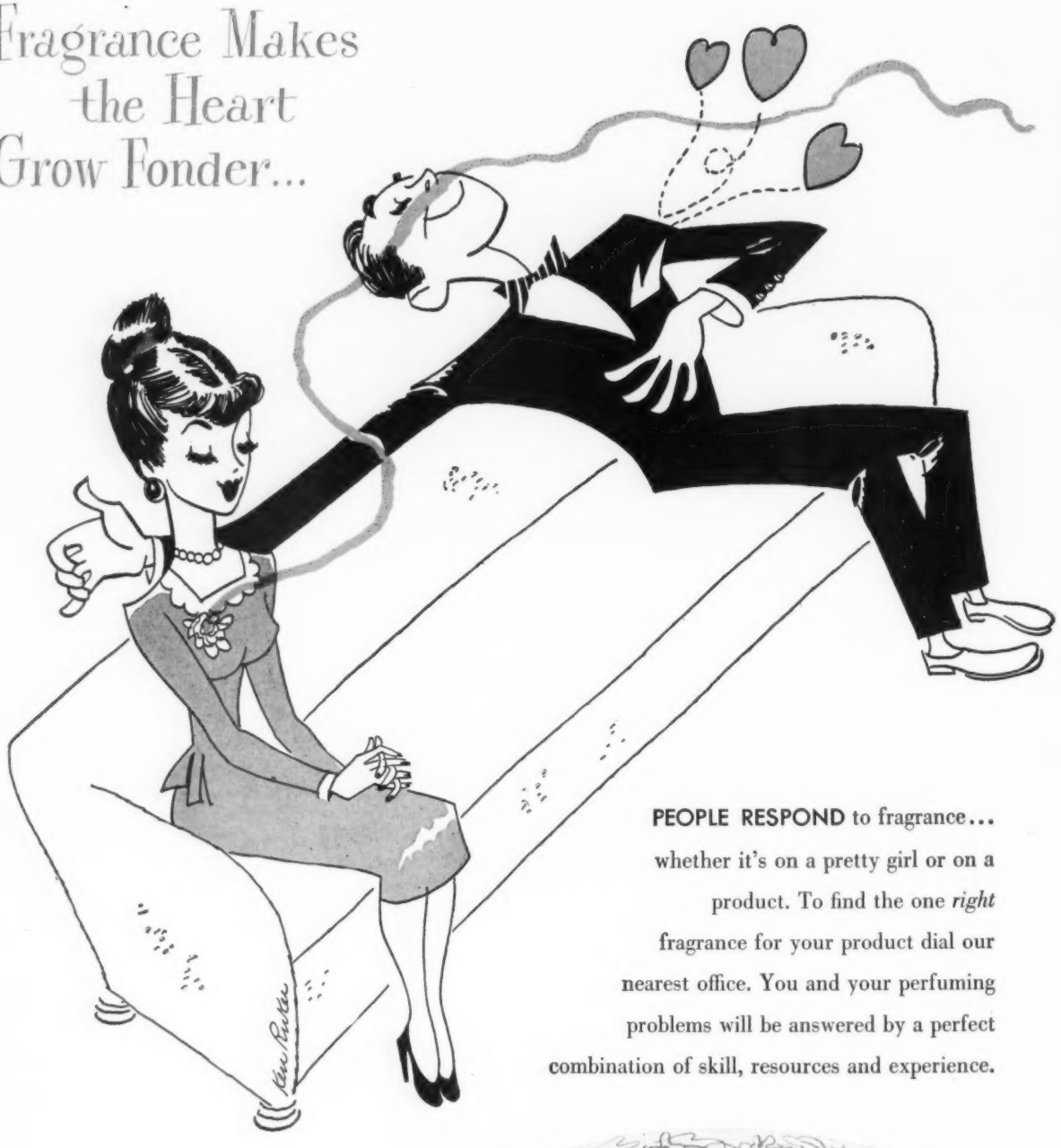

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TOP NOTES

FLOWER of the Month

August—Poppy or Gladiolus

September—Aster or Morning Glory

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WHO shall judge a fragrance? He who creates it or she by whom it may be worn? Is consumer testing the better guide to a perfume's desirability or should heavier reliance be upon the expert's knowledge of what constitutes a well-balanced, technically correct formulation . . . upon his ability to discern and cater to changing odor trends . . . upon his accuracy of judgment in selecting the most acceptable fragrances within a given price range for a specified purpose? While in the course of a perfume's development we may frequently invite the comments of others than our staff, it is primarily upon the good judgment of our experts that we rely for the final quality and character of our finished formulations. Laymen's opinions, while valued, are no substitute for the carefully formulated recommendations of our perfume specialists, who by training, experience and intimate knowledge of each problem handled are the ones best qualified to say: *THIS* is the fragrance for your product!

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A THOUGHT for the Month

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—FRANCIS BACON

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An exceptionally fine reproduction of Persian lilac.

A strong lilac composition with characteristic "green" topnote.

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A floral bouquet with a lilac motif and slight fruity topnote.

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pleasant to take—a welcome routine that even the most tryi
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methyl benzoate, methyl heptine carbonate, the p.-cresol ethers, phenylacetaldehyde and its dimethyl acetal.*

It is my considered opinion that, when some of these auxiliaries are used in the same restrained manner as in the earlier procedures, namely, the addition of only a few drops of the essential oil to a pint of mixed extraits, then the strength, tonal beauty and tenacity of such simple floral perfumes compounded by this technique is a revelation when compared with some of the modern overloaded and heavily fixed "creations."

To conclude this section, I would reiterate my opinion that, suitably modified, the basic principles of colour combination can be employed in perfumery composition. If a simple schedule of two-fold blossom odour admixture is first prepared and the results noted from practical experiment, although we have no accepted nomenclature to describe such unions, a foundation is at least prepared for the understanding of the more balanced versions of the trials. How far my own versions of such end-points are acceptable, however, must be left to the opinion of other workers in this field. Nevertheless, I should like to conclude this essay into what I think are the fundamentals of elementary floral combination by quoting from the last paragraph of the *Naarden News* for June 1953, which says: ". . . the composing of a perfume is an art, or in other words, it is based upon human feelings, of which it is a medium of expression."

(To be continued)

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TESTS for determining ability and skill of potential beginner office workers are now available in a complete series package. The National Business Entrance Tests determine ability of job applicants to perform sustained work of the type actually required on the job. Separate tests are available to measure skill in stenography, typewriting, bookkeeping, calculating machine operations and general office work. A companion test is also available covering business fundamentals and general information. Part of a non-profit service, the tests are said to be among the most reasonably priced as well as the most reliable office skill tests available. Published by the joint committee of the National Office Management Association and the United Business Education Association an 8 page booklet describing the series is available on request from the Joint Committee on Tests, 132 West Chelton Avenue, Philadelphia, Pa. *—NWDA Newsletter.*

Senator Soaper allows that it may be too late for next Christmas but he has a wonderful idea for a different gift for milady—perfume in a bottle-shaped bottle.—*Phoenix Flame.*

* This list may well be compared with that given by Y.-R. Naves ("Natural Perfume Materials") of important natural constituents that frequently occur throughout the whole range of flower oils, namely: benzyl alcohol, benzyl esters and ethers, including methyl benzoate; phenylethyl alcohol and its isothiocyanate, cinnamic alcohol, cinnamyl acetate, cinnamaldehyde, cuminal, methyl salicylate, methyl anthranilate, paracresol, dimethyl hydroquinone, eugenol, isoeugenol, methyl eugenol, vanillin, heliotropin and indole—Editor.

Leading Metropolitan Markets

FOLLOWING is a list of 30 leading metropolitan markets whose annual retail sales total $700 million or more. These markets account for 37% of the population and 49% of all general merchandise sales, according to Sales Management:

New York	$15,700,000,000	Milwaukee	$1,100,000,000
Chicago	7,200,000,000	Houston	1,100,000,000
Los Angeles	6,000,000,000	Cincinnati	1,000,000,000
Philadelphia	4,100,000,000	Dallas	970,000,000
Detroit	3,800,000,000	Portland	960,000,000
Boston	3,200,000,000	Seattle	910,000,000
San Francisco	2,900,000,000	Atlanta	850,000,000
Pittsburgh	2,500,000,000	Miami	780,000,000
Washington, D. C.	2,000,000,000	Indianapolis	780,000,000
Cleveland	1,900,000,000	Denver	770,000,000
St. Louis	1,900,000,000	Hartford	740,000,000
Minneapolis	1,500,000,000	Providence	730,000,000
Baltimore	1,500,000,000	Bridgeport	730,000,000
Buffalo	1,300,000,000	San Diego	720,000,000
Kansas City	1,200,000,000	New Orleans	710,000,000

—NBBA Bulletin

Retailer Discount

INCREASING retailer discontent reflects current pressure for more sales. According to a survey by Printer's Ink magazine among retailers and wholesalers in food, soft goods, drugs, jewelry, candy, tobacco etc. reveals that there are several major irritants independent and chain alike. Primary gripes are that mark-ups are not high enough to offset increasing operating costs; discount houses are cutting profits and there is not enough policing by manufacturers; there is not enough cooperative advertising, for the independent and national advertising is not always to the dealers' interest; salesmen are not familiar enough with dealers needs and tend to overload both retailers and wholesalers; and there are too many small profit deals for retailers.—*NWDA Executive Newsletter.*

"A splendid ad, Mr. Baldwin; did you write the copy?"

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In planning any new fragrance, be it for a fine perfume or as a cosmetic fragrance, it should be well planned as to style and price, taking into consideration the market, the name, the package, the promotion.

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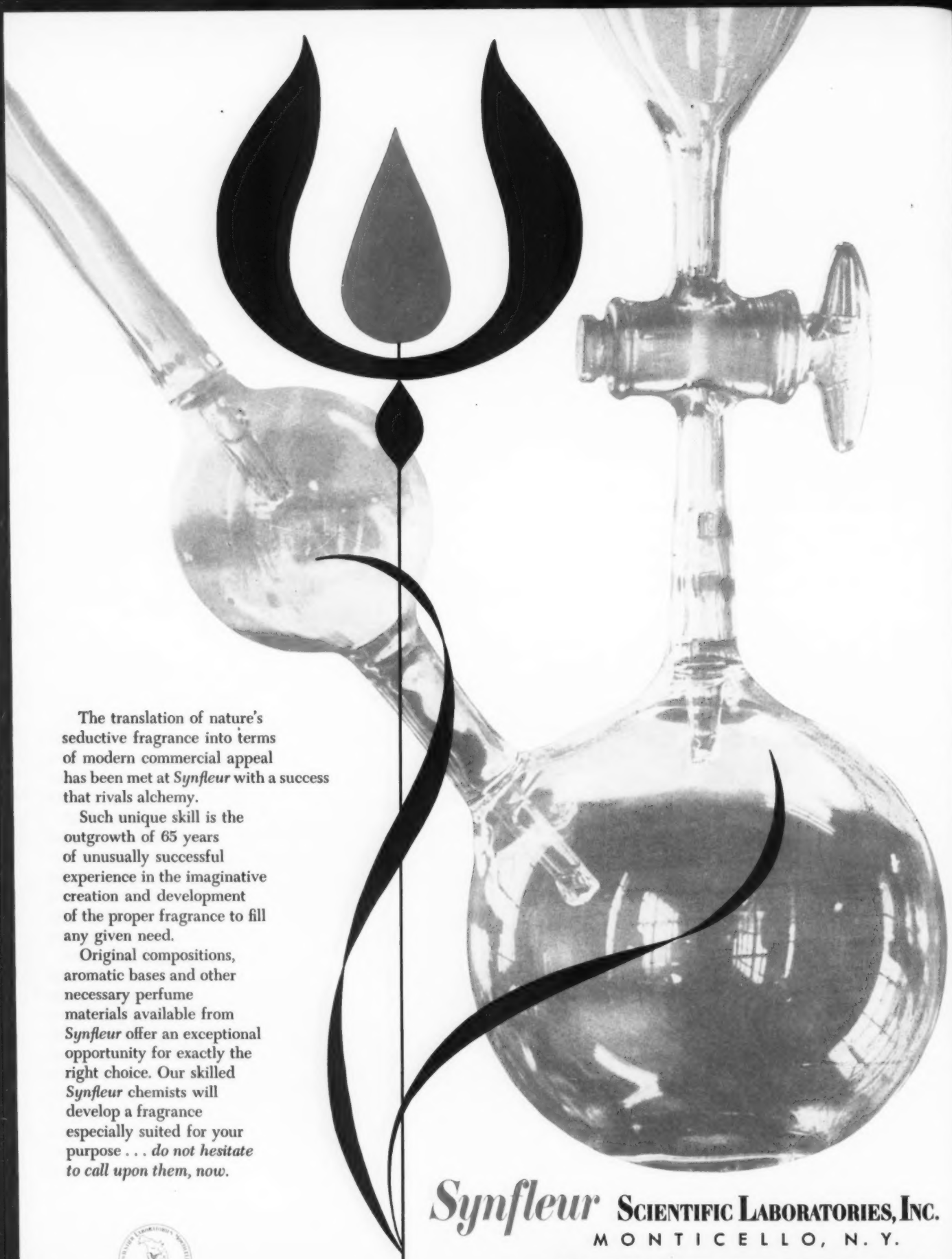

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H. R. SHEPHERD*

An aerosol can is filled by the pressure filling system at a Dodge & Olcott laboratory. All foam products are filled in this manner.

THE aerosol section of the cosmetic industry is one of the youngest, certainly the fastest-growing, and in many respects the most peculiar part of the great industry supplying beauty aids to the American public. One meets a very strange type of individual in the aerosol business, with youngsters barely out of school who talk as if they have had fifty years of business experience and as if they know it all—and perhaps they do know almost all that is now known; and then there are the oldtimers who have been with this field from the day of its inception, and who admit that thus far they know next to nothing.

Where does the word "aerosol" come from? It is a generic term, found in many physics and physical chemistry textbooks, and referring to a colloidal system of finely divided particles suspended in air or space. From this definition, it is evident that the pressurized dispensing package obtained its present name.

Although often referred to as a new industry, dating back only to World War II, actually the history of aerosols is longer. The first aerosol package, in the sense in which this word is used today, can probably be traced back to the 1890's, but the public was not ready for this advance, research could not yet cope with the problems involved, and industry was unprepared to create a public demand.

To complete the historical picture, the father of this industry, in my opinion, was Charlie Griebauher, who bought glass bottles from a jobber in Cleveland, put a valve on them, and sold a product that could be used as a local anesthetic. The anesthetic itself, being a refrigerant, acted as its own propellent. The product was ethyl chloride.

* Vice-President in charge of research, Connecticut Chemical Research Corp., Bridgeport, Conn.

Except for this instance, there is little to indicate in the meager history any continued interest or research on aerosols. Then came World War II, with the tremendous impetus that it gave to research and industrial development, particularly leading to new attention in the field of insecticides. The need for insecticides for the armed forces was greater than anyone had anticipated, and the aerosol package offered an ease of operation and a greater efficiency that was evident to the civilian as well as to the man in uniform. So strongly did the new insecticide packages entrench themselves that the oldtime dispensers soon disappeared or continued to do only a limited job.

First Aerosol Cosmetic

No doubt, from the time the first aerosol insecticide came upon the market, the possibilities for such a package in the cosmetic field evoked wide interest and discussion. The first aerosol cosmetic, to my knowledge, was a toiletry known as Gay Manhattan, which appeared in 1946 or 1947, and sold to the public for about twenty dollars per can. At that price, its sale was naturally limited.

But before cosmetics had really become an important factor in aerosols, the entire household products field was being opened up, spreading from the insecticide into the very interesting product, the room deodorant which, because of the role played therein by fragrance, is closely related to perfumery and hence to cosmetics.

As the pioneers in this industry began to approach the cosmetic houses, we were constantly told that the cosmetic industry is engaged in selling beauty and elegance, and that elegance must be sold on the outside of the package as well as within. Elegance must be in

Beauty Treatment

Home beauty treatments depend upon your products of course, but also upon the cosmetic-ware that is equally at home on dealers' shelves and dressing tables.

That's where H-A comes in.

H-A cosmetic-ware is made to sell on dealers' shelves and to say "use me" on consumer dressing tables.

Take these pluses, and add efficiency on the production line, and you will know that beauty treatments start with H-A cosmetic packages.

HAZEL-ATLAS GLASS COMPANY WHEELING, W. VA.

Filled cans are crimped or sealed with special capping machine. Type of valve used is determined by product to be packaged.

the name, in the advertising, in the fragrance, on the label, in the contents, and in the container in which the product is sold. Cosmetics, we were informed, must not look like insecticides, and will not be received by the public if they do resemble the bug-killers, even if the resemblance begins and ends on the outside of the package.

Search for Package Improvement

Thus started the search for package improvement, in which progress has been really remarkable. The packages in lovely pastel colors, the new valves and the new caps, all contribute to an aura of elegance that is a far cry from the mothicide package of only five or six years ago. And then, in recent months, came the glass bottle and the plastic-coated glass bottle, each of which will make a contribution that could not possibly be made by the metal can.

To arrive at the present point in the aerosol cosmetic field, innumerable problems were encountered, not all of which have been solved. They were problems of engineering, of chemistry and of physical chemistry. Many mistakes have been made, but the research that is being done will bring forth solutions in the months and years to come to many of the knotty problems that still face us.

Why Aerosols are Popular

Before recapitulating the present status of aerosol packaging, let me ask the question: why has the aerosol made such remarkable progress during the past couple of years, and why is still greater progress indicated for the next few years to come? To a certain extent, the success of aerosol has been due to the solution of many of the technical problems, although at the same time the solution of these and other problems was made possible by the initial successes. But more than that, aerosol fits into the tempo of the modern American way of life. It is a method of packaging and dispensing that is easy, clean, labor-saving to the user, and appealing to a people that is used to the mechanical and the mechanized way of life. That is why aerosols have caught the imagination of the public, and where they offered definite advantages—as in insecticides and later in hair sprays—they initiated a trend.

Now, how strong is that trend? What is its present momentum? In 1947, there were some five million aerosol cans made in the United States; by 1951, this figure had risen to 42 million; in 1952, it was 98 million, and last year 140 million. And this is only the beginning.

Hair Lacquer and Shaving Cream

To cite the two cosmetic products that have thus far enjoyed the greatest success, hair lacquer and shaving cream, the growth has been just as phenomenal. Hair lacquer was little used before the advent of aerosol; today consumers prefer it over the non-aerosol package by a vote of five to one. In 1952, there were 8,700,000 cans of hair lacquer made; last year, the figure was upward of 15 million. To turn to shaving creams, 1951 saw the production of 3,600,000 cans; 1952 figures showed 16 million cans; and 1953 saw 30 millions.

When we say that the 140 million cans made in 1953 constitute only a beginning for this infant industry, we are not indulging in wishful thinking. Many new products are now under discussion or in the laboratory developmental stage, which will undoubtedly appear in a year or two, and which promise to add many millions to these figures. The glass bottle and the plastic-coated glass bottle are just beginning to appear. Before long, every fragrance house will have its aerosol colognes and toilet waters. A metered valve, enabling a given predetermined amount of the contents to be ejected with each use, will make its appearance on the market before long, and will unquestionably become a universal replacement for the purse-size perfume flacon. Work on shampoos, on pharmaceutical and ethical products, on new and cheaper propellents, all will contribute to new and better aerosols in the cosmetic and related industries.

A man's judgement is no better than his information. —*Phoenix Flame.*

No one has more trouble keeping up with the Joneses than their creditors—*The Item.*

IMAGINATIVE FLORALS BY D&O

The fresh, lilting fragrance of the floral perfume has accounted for a centuries-old popularity, as alive today as it was during the fabulous reign of the Caesars. To the manufacturer of extracts and toilet waters, seeking a gay, graceful bouquet base, D&O offers with pride these fine floral favorites.

AZURELEA 115*—Fresh, lilting floral mood is captured in this combination of flowers from gardens, shrubs and fields.

CADENZA 115*—A brilliant, agile scale of floral notes. Aldehydes skillfully produce popular modern effects.

BELLO 40-R-2792*—The spicy notes of the carnation subtly modified with narcisse and jasmin tones.

STELLAR 40-R-1862*—An intensely floral fragrance in which is suggested the heavy, luxurious scent of gardenia.

**Trial quantities and specific recommendations on request.*

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SHEFFIELD TUBES

first choice of the famous J. R. WATKINS CO.

Man's war on insect pests is virtually eternal... but it's adios to mosquitoes and jiggers to chiggers when Watkins' effective insect-repellent takes over! *Sheffield Process* collapsible tubes have been Watkins' choice for plus packaging of this item as well as Watkins' Lather and Brushless Shaving Creams, and Watkins' Toothpaste. Sheffield's association with this famous American company began before the turn of the century and has extended through wars, depressions, and good times alike. It suggests the wisdom of procuring collapsible tubes from Sheffield, where service is not merely a slogan but is based on expert counsel, quick action, and detailed follow-through. For superior tubes and tube-manufacturing know-how from A to Z, try Sheffield Tube on *your* next order.

THE SHEFFIELD TUBE CORPORATION

Factory and Home Office: New London, Connecticut • Sales Offices: New York - Chicago - Los Angeles

NEW...

A refillable metal compact for cake powder!

New Idea:
Powder Pan Retainer

SCOVILL HAS DESIGNED a metal compact for compressed (cake-type) powder that can be refilled when empty!

There has long been a crying need for this type of compact which combines all the fine features and attractive appearance that can be obtained only in a fine metal container.

This new "gold vanity" has a powder pan retainer that is an integral part of the compact. It is held securely in the compact, yet snaps open easily when it is time for a refill. (This will increase your refill business.)

The refillable compact is available in a variety of square and round shapes, can be finished to any specifications, and may be lettered or decorated as desired.

Ask a Scovill representative to show you this latest new product developed by Scovill's Drug and Cosmetic Container Division. Maybe it's the answer to a problem you're facing right now!

At any rate, please remember this. Call us *any* time you have a container problem. We are *sure* that our engineers will be able to help you as they have others.

SCOVILL-MADE Containers

A product of SCOVILL

SCOVILL MFG. COMPANY, WATERBURY 20, CONN.

NEW PACKAGING and PROMOTIONS

Chesspiece Perfume Box

MARY CHESS' Chesspiece Perfume Box contains six Chesspiece Perfumes. The ¾ dram pieces are King, Queen, Bishop, Knight, Castle and Pawn, in six fragrances, and they are gold-capped. They lie upon a removable tray of ivory satin, set in a cream-and-gold brocade box with golden clasp. With the perfume tray removed, the box serves as evening purse. The price is $7.50.

REVLON is reported to be spending $8,500,000 for advertising this year, with most of it to be placed in the second half. Silken-Net Hair Spray is to be backed by $2,500,000, and new Lanolite Lipstick and Nail Enamel will receive $1,500,000 in advertising, with Touch & Glow Make-up and Love Pat compact scheduled for their share of the appropriation.

HARRIET HUBBARD AYER introduces its Luxuria Creme Powder Pat, regularly $1.25, in a special offer with the $1 Ayerfast lipstick, together for $1.50. The combination powder-foundation available in six shades, comes in a white plastic mirrored case with velour puff.

RICHARD HUDNUT introduces two new hair care items, Setting Pretty, a wave-set, and Hair Repair, a "corrective and conditioning oil." Setting Pretty comes in a functional plastic bottle with a special sprinkler-top applicator for application direct from the bottle. It sells for $1. Hair Repair, for over-processed, bleached or tinted hair, and for pre-shampoo treatment, is said to penetrate the hair shaft, giving it strength and body, reducing breakage, and renewing lustre. It retails for $2.

HOUBIGANT offers a quartet of purse-size perfumes, individually packaged in acetate, together in a moire case, at $5.

PRINCE MATCHABELLI's Cologne Cruise package consists of four new colognes named after four Mediterranean ports, with fragrance to match. Tangier Cologne is described as heady oriental;

Cologne Cruise trunk package

Valencia Cologne, light oriental; Cannes Cologne, sophisticated floral; and Napoli Cologne as a brilliant bouquet of many flowers. Each one-ounce bottle fits into its own carton, decorated to portray the spirit of a native dance. The cartons are joined together accordion-fashion, and fold together to form a trunk, sea-blue in color, complete with strap, stickers, and tag. The package retails for $2.50.

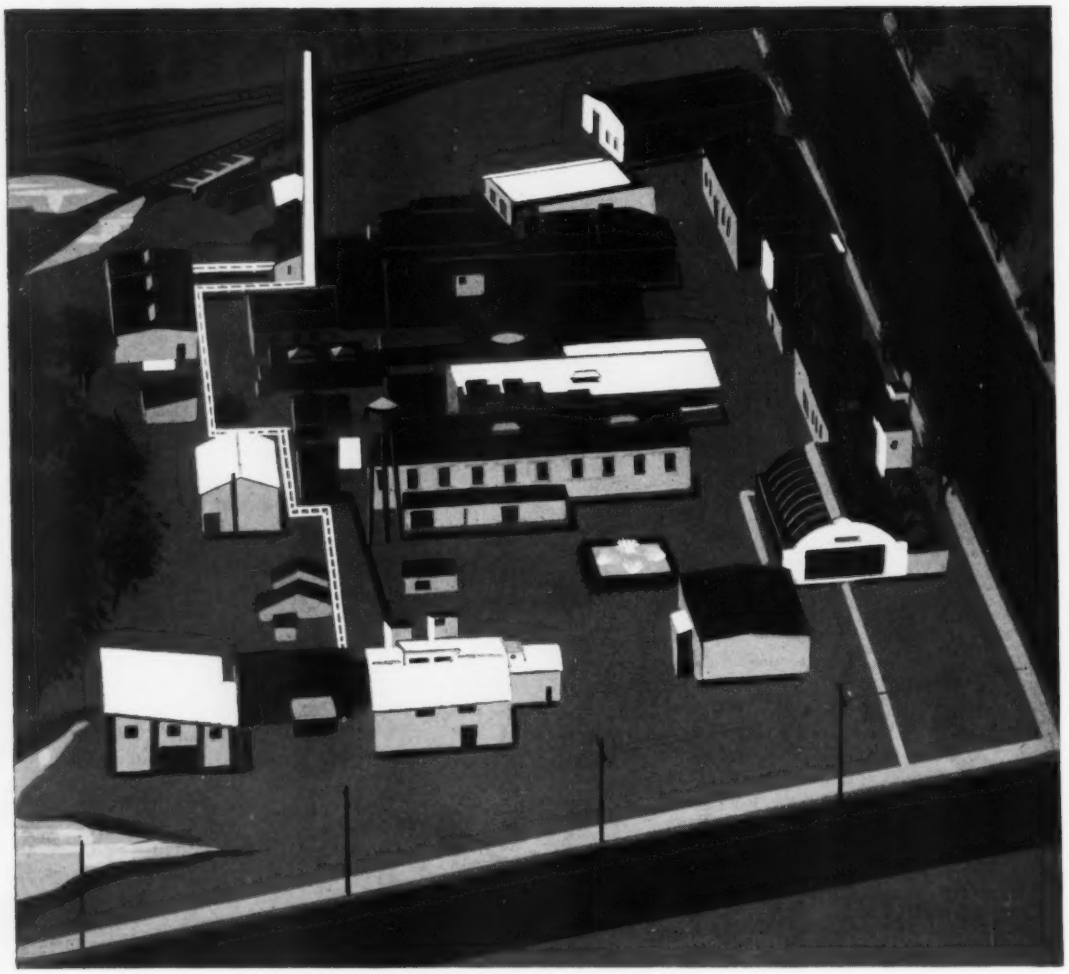
BRECK Creme Rinse is being introduced on the retail level nationally by a special combination offer throughout August. It consists of an 8 oz. bottle of Breck Shampoo and a trial size 2½ oz. bottle of new Breck Creme Rinse, together for $1, the price of the shampoo alone. The regular 8 oz. size Breck Creme Rinse will retail for $1. Advertising will consist of full color, full page advertisements in national consumer magazines for women, Sunday supplements, and cooperative newspaper advertising.

THE TONI DIVISION of The Gillette Co. announces Deep Magic, a new facial cleansing lotion that will "clean skin up to three times cleaner than soaps or cream." A Toni release estimates that 65 percent of American women use some types of facial cleansing preparation and spend $50,000,000 annually on these products. For the first year, Deep Magic will be supported by what is said to be the largest advertising appropriation ever placed on this type of product. The copy theme will be, "cleans the skin up to three times cleaner than soaps or creams." Advertising via weekly magazines, romance and fashion publications, women's service books and newspaper supplements, plus radio and television, will be initiated about August 15.

ROGER & GALLET is introducing its new "RG 10," special detergent for washing hands and face, to be used in bath or shower, in a stepped Robert Gair Co. display carton. Six bottles are packed in a double tiered display which doubles as shipper.

Detergent display

Dedicated to Finer Fragrances!



This 10-acre plant of Verona Chemical Company is dedicated to the development and production of ever better organic chemicals for the perfume, toiletries, cosmetic, and soap industries.

Here the most modern production methods and the finest equipment are linked together with alert and experienced research and development laboratories . . . to give your products more alluring, more lasting fragrances.

Listed here are a few of the many outstanding Verona fragrances. Try them *in your present oils* and note the marked improvement.

ALDINE VERONA . . . With only ½ to ¾% you'll hit an exciting new aldehydic topnote.

RESEDALIA . . . . . To make your Lily and Lilac scents come thrillingly alive — add ½ to ¾%.

CYCLAMAL . . . . . Add up to 5% — for a cleaner, crisper impact.

CUMIN KETONE . . . . See how only ¼ to ½% added to your present floral fragrance heightens and freshens the effect.

Sole Representatives in the United States
for J. and E. Sozio, Grasse, France
Natural Absolutes • Resinoides • Essential Oils

Write for a complete list of Verona aromatic chemicals and specialties.

USE VERONA PRODUCTS TO BUILD SALES FOR *Your* PRODUCTS

AROMATICS DIVISION

26 Verona Avenue, Newark, N. J. VERONA CHEMICAL COMPANY 1210 Rosedale Ave., Chicago, Ill.

JAQUET's Rose Jasmine Floating ("like a pink cork on a blue sea") Soap sells for $3.75 per box of three cakes. Publicity states "you'll never set foot in your bath-tub again unless it is floating beside you once you have used it!"

TUSSY COSMETIQUES is marketing After Bath Lotion. A crystal frosted 12 oz. bottle, lettered in pink and topped with a reverse tapered pink cap, sells for $1.75.

HELENA RUBINSTEIN is promoting its ammonia-less Home Hair Lightener kit at $1.50.

POND's offers Make-Up Mist, a tinted liquid foundation with minimum oil content. A ¾ ounce plastic squeeze bottle which releases drop by drop sells for 59 cents. Make-Up Mist will be promoted through national advertising, an introductory dealer bonus of one free with every purchase of 11 units, and an easel display which also stocks 18 dozen bottles in the back, which are kept ready to drop into play automatically for self-service. Initial deliveries are scheduled for September.

CHARLES OF THE RITZ introduces a new French fragrance, Ishah. The perfume, in a round ½ ounce bottle, sells for $10; a one dram flacon retails for $2.50; a 3 oz. bottle of toilet water sells for $2.50; and a round 6 oz. box with dusting powder, complete with velour puff, sells for $2.

PRINCE MATCHABELLI offers a Golden Jubilee Gift Package containing matchmate pairs of perfume and cologne, in ¾ oz., ½ dram crown bottles, individually gift-boxed, with a third bottle as "gift" to the purchaser.

Jean Nate bath lotion

JEAN NATE, INC. offers Friction after bath lotion in an 8 oz. plastic bottle, formerly available only in a travel kit. It sells for $1.75. The regular 8 oz. size frosted bottle of Friction sells for $1.50.

MARCEL ROCHAS offers Eau de Cologne in black lace-etched packaging, at $3 for the 2 oz. size, $5.50 for the 4 oz. one, and $8.50 for the 8 oz. bottle.

HELENA RUBINSTEIN introduces Turn Blonde package, consisting of a bottle of liquid and a tube of cream, which may be worked into a whipped cream-like, easily manageable consistency. The action takes about 30 minutes. The package retails for $2.00.

REVLON is distributing its 16 oz. king-sized Aquamarine Lotion shampoos for $1.25, the price of the regular 8 oz. size, in the Los Angeles trading area, and will continue the promotion in the rest of the country after September 7 for one month only.

LENTHERIC introduced its latest lipstick red, called Apple of Eden, with a press and buyers party featuring serpents, snails, flowers, celebrities, music and cocktails.

LADY ESTHER is about to market Puff Magic, its new compressed face powder, following tests in Indianapolis and Columbus. Advertising plans include newspapers, Sunday supplements and national magazines, plus radio and television.

HAZEL BISHOP's newest nail polish shades are Soft Pink and Light Red, to match its lipsticks.

ALEXANDRA de MARKOFF is now marketing Elixir de Markoff, as announced

Royal Jelly treatment

in last month's issue of *The American Perfumer*. The new skin treatment containing Royal Jelly, produced by bees, comes in a 1 2/3 ounce jar selling for $15.

SHULTON, INC. has added Old Spice Electric Shave to its Old Spice for Men line. It is packaged in a flask-shaped 3¾ oz. bottle grooved for hand-grip, in pottery-type glass, decorated with blue Clipper Ship design. It retails for $1. A counter display unit holds six cartoned bottles.

LANOLIN PLUS lipstick, containing "Indelium," is described as creamy, non-drying and long-lasting. It comes in five shades, in a yellow-banded gold container. It sells for $1.

LIQUINET introduces a purse-size Liquinet in a polyethylene squeeze bottle at 60 cents. A special limited-time introductory offer combines the regular $1.25 aerosol size and the new 60 cents purse-size, both to sell for $1.49.

Magician George Horn entertains guests of Hochschild, Kohn and Co., Baltimore, Md., department store, in their Tea Room at Tom Fields, Ltd.'s Tinkerbell Magic Party. More than 200 youngsters enjoyed the refreshments, entertainment and souvenirs that were part of the manufacturer's first major store promotion. Success of the idea as well as basic format has led to plans for similar parties for key accounts in cities throughout the country this Fall.

CHARLES OF THE RITZ offers Medicated Duo, "a soothing, healing flesh-colored cream," to be used at night, and a tinted medicated lotion to heal and conceal by day. A slide drawer box holding a 1-ounce jar of Medicated Cream and a 2-ounce bottle of Medicated Lotion in a choice of two shades, light or dark, sells for $2.75. Separately they cost $1.50 for the cream and $1.25 for the lotion.

OGILVIE SISTERS announces a special sale of their 16 oz. $1.25 Castile Soap Shampoo for 98 cents during August and September only. The offer is not available in some states, where the quart size Castile Soap Shampoo selling at $2.25 is now retailing for $1.75. The shampoo is concentrated and has to be diluted to twice its quantity before using.

RICHARD HUDNUT introduces Pink Suds cleanser, a pink lotion that bubbles

Hudnut cleanser

and foams even in hard water. It will be backed by newspaper advertising. A four ounce bottle sells for $1.

CICOGNE, INC. introduces its Sortilege perfume in a special two-for-one offer with Sortilege toilet water.

POND'S offers a 25 cent bottle of Angel hand lotion with each 55 cent jar of Cold Cream. The combination comes in a pink and black carton.

HARRIET HUBBARD AYER is distributing an aerosol spray presentation of Woodsy and Golden Chance colognes at $1.25 and $1.50 respectively, for a 2 oz. size.

YARDLEY of London, Inc. has designed a new swivel-type, propel-retract package for its cologne stick line. The new case permits direct application to the skin without handling the stick itself. Special display cases hold two units each of English Lavender, Bond Street

Above, Cutex' Cute Tomata contest judges choosing Miss Cute Tomata from hundred of entry blanks. From left to right are Beth Harber Lavine, of Seventeen magazine, Harriet Segman, of the True Story Women's group of publications, John Rawlings, fashion and beauty photographer, and Northam Warren, Jr., vice-president and general manager of Northam Warren Corp., Cutex producers. Seated is Martha Rountree, noted television producer. Prizes include a Hillman Minx convertible car, a trip to New York City, and a day's visit at Paramount Studios, Hollywood.

and Lotus. The sticks, in their unbreakable containers, sell for $1.50 each.

LANOLIN PLUS Suntan Lotion has been reformulated. Pale peach in color, it is said to have increased protective qualities plus a no-stain factor.

ROBERT H. CLARK CO. has developed a new bubble bath, called Smokey Bear Bubble Bath (with the approval of the U.S. Dept. of Agriculture). The cover and bubble bath envelopes feature

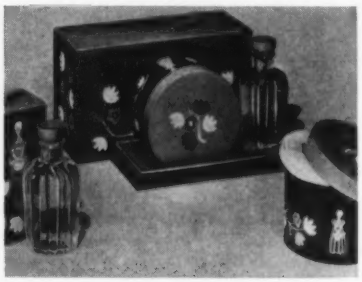
Smokey Bear Bubble Bath

cartoons of Smokey Bear with his two little cubs, as well as forest fire prevention slogans. The package contains twenty ¾ oz. envelopes of concentrated bubble bath powder. It sells for 89 cents.

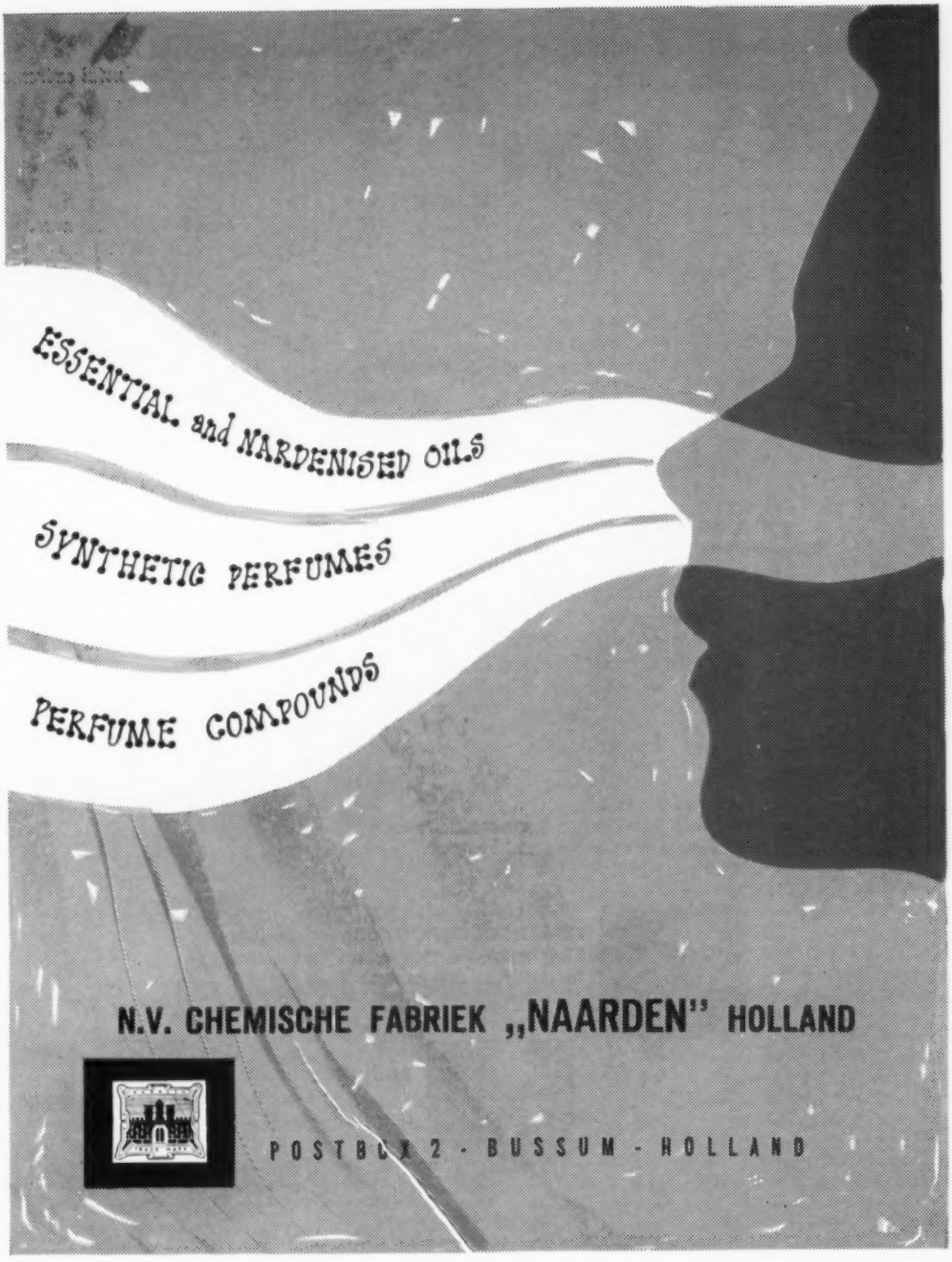
ELIZABETH ARDEN'S Introductory Beauty Box contains eight beauty preparations: Ardena Cleansing Cream, Ardena Skin Lotion, Ardena Velva Cream or Orange Skin Cream, lipstick in two shades, Featherlight Foundation, Illusion Face Powder, Cream Rouge and Eye Shade. The mirror-topped, leather-like covered Beauty Box sells for $5.

RICHARD HUDNUT'S Quick is described as a revolutionary speeded-up home permanent wave. It comes in three formulations: Regular, for normal hair; Super, for hard-to-wave hair; and Gentle, for easy-to-wave hair. The product will be promoted through newspaper advertising and NBC-TV's "Your Hit Parade." The price is $1.50.

SHULTON has repackaged its Early American Old Spice line. The first packages, to be readied in time for Christmas gift-giving, are toilet water, dusting powder and combination gift package. These are cartoned in charcoal-grey and soft blue, with white and gold sprays and figurines in light blue and red.



New Shulton Old Spice packaging


ESSENTIAL and HARDENISED OILS
SYNTHETIC PERFUMES
PERFUME COMPOUNDS
N.V. CHEMISCHE FABRIEK „NAARDEN" HOLLAND
POSTBOX 2 - BUSSUM - HOLLAND

Six Outstanding Modern Compositions!

EXOTIQUE #6270
A heavy, lasting Oriental extremely powerful and cloying.

BOUQUET "D" #7618
Imparts a delightful effect and lasting freshness. Clear topnote retaining full-bodied odor.

JADENE #7620
Full fragrance reminiscent of night blooming Jasmine combined with Gardenia.

LEADING THE PERFUME PARADE

Penick Perfume Compounds when used as bases for your new odor creations or to supplement your present odors will assure them of being out in front! They will guarantee shelf-life and customer appeal. Blended from the finest oils, aromatics, and fixatives, they are triumphs of the perfumer's art.

SOIE VERTE #7631
An artful blending of Bergamot, citrus and aldehyde notes. An unusual bouquet.

FLORAL BOUQUET #7653
This bouquet is an unusual floral note for perfume and cologne.

BOUQUET PERFUME OIL #7677
A retentive floral composition particularly useful in creams and lotions.

Investigate Penick perfume bases — over 3,000 to choose from. Test them for yourself . . . a request on your letterhead will bring you samples. Write Dept. 8

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The Editorial - "WE"

Aerosol Potential Still Untapped

WE were deeply interested in the statistics that were released recently, at the time of the Chemical Specialty Manufacturers Association meeting, showing a phenomenal growth of the aerosol industry. Month by month, year by year, the production of aerosol units goes through an uninterrupted increase. The line on the graph goes up, constantly up, and it is a very dramatic and steep line, too. The most recent figures indicate that some 140,000,000 cans were sold in the United States last year. Among the most important products were mothicides and other insecticides, shaving creams, hair sprays, room and space deodorants, and others. There is indeed well-founded encouragement in this increase, particularly since, with such products as hair sprays, it represents a plus for the cosmetic industry, rather than a replacement of a similar product in another package. However, there is still less than one can of an aerosol-packaged product being sold for each person in the United States per annum. The sales figures of 1953 and 1954 will indeed look anemic before this decade has run its course.

Food Stores Carrying Cosmetic Preparations

NO study of retail sales and marketing trends carries the weight of prestige of the work of the A. C. Nielsen Co., and for that reason alone the report of Nielsen on retail drug and proprietary store sales for 1953 would be worth study, even if it contained nothing of specific interest to command attention. But for us it contained a great deal more than generalization and discussion. We have all been aware of the trend toward increased stocking and sale of cosmetic products in food outlets. In 1946, 58% of the food stores in America were selling dentifrices; by 1953 the figure had jumped to 88%. For shampoos the growth was from 50 to 81%; for shaving creams, from 40 to 74%; hair tonics, from 26 to 68%; while baby oils were carried in only 14% of the food outlets in 1946, and in 60% last year. Furthermore, since the number of food stores is obviously far, far greater than the number of drug stores, these figures assume even deeper significance. There are six times more food stores than drug and proprietary stores handling dentifrices; and even corn remedies, now being sold by only 26% of the food outlets, can be found in twice as many food as drug stores. When eight selected drug items were studied (the eight were unnamed), it was found that in 1951 the food stores had 36% of the business, and in 1953 this had grown to 45%. It would be difficult to find any single factor or event in the cosmetic world at this time (from the lowering of the excise tax to the mushrooming of the beauty stick business) that can more surely affect cosmetic pricing, selling, merchandising, packaging, and even formulation, in the years to come.

Program Announced For Cosmetic Seminar

FOR some time, it has been known that the Society of Cosmetic Chemists would hold a cosmetic educational seminar in New York this Fall, and the program and plans for that seminar have recently been announced. The program includes three symposia, each of which is to be led by two authoritative speakers and an equally impressive moderator; there are five plant trips being planned, with the chemists in attendance at the seminar faced with the difficult problem of deciding which one of the five is most useful and interesting. Finally, an exhibition has been arranged of instruments and equipment that will give those in attendance an opportunity to become instructed in and personally acquainted with radioactive tracer techniques, infrared and ultraviolet spectrophotometry, and other important tools of the present-day researcher. It hardly seems necessary to add our word of congratulations to all those responsible for the initiation and planning of this seminar. The program itself is a testimonial of their achievement; the two days, we are confident, will merely be verification of that testimonial. Allow us, rather, to urge all serious research workers, if they have not already done so—and if it is not too late—to rush their reservations for the seminar to the Society of Cosmetic Chemists.

Plant Trips Should Be Encouraged

ONE aspect of the cosmetic seminar that held our attention was the plant trip. Five companies (one a manufacturer of raw materials, the other four of cosmetics for the consumer) have graciously invited those registering for the seminar to come on a tour of their factories, in order to see, among other things, laboratories, plant equipment, and production lines. It was, in fact, in these very columns, and not many months ago, that we urged just such a trip, to be held in conjunction with the meetings of the T.G.A., and the S.C.C. The industry as a whole, and hence all responsible parts of it, can only gain from having better and more intercompany communication among technical men, at conferences, symposia, and in such activities as visits to some of the more modern and more interesting laboratories and factories. This is not to deny that there are and must be carefully guarded company-owned formulations, processes, and methods of production and operation, but these are certainly not going to be seen or understood by a two-hour lecture tour. The opening

of the doors of these plants to the cosmetic seminar attendants, which means to many competitors, may indeed be a symbol of the disappearance of the shroud of secrecy which at one time was a serious impediment to progress in cosmetic chemistry. May the plant trips be well attended and may they be repeated and encouraged in the future.

New York Enacts Trade Mark Law

ALMOST interesting and significant piece of legislation has recently been enacted in the State of New York, and is generally referred to as the Dilution Bill. The new law affects trade-mark infringement, and provides: "Likelihood of injury to business reputation or of dilution of the distinctive quality of a trade name or trade mark shall be a ground for injunctive relief in cases of trade-mark infringement or unfair competition, notwithstanding the absence of competition between the parties or the absence of confusion as to the source of goods or services." The importance of this legislation can be found in the protection that it offers to the owners of trade marks against their being used by firms in non-competitive fields of endeavor. Thus, if a manufacturer establishes a trade mark for his perfume, it is not enough that this trade mark may not be infringed by companies marketing another fragrance product, nor such a related item as mascara or shampoo, but it may not be used as a brand name for gloves, ladies' hats, or anything else that a man or woman might seek to purchase. The fact that there is no competition, that there would be no confusion, is no defense, under the New York law. The trade-mark owner would merely be called upon to demonstrate a likelihood of injury to his business reputation or a likelihood of dilution of "the distinctive quality" of its trade name or trade mark. The bill came with the approval of the United States Trade Mark Association and other groups. It should be studied and, in our opinion, vigorously policed and enforced.

An Important Job And One Well Done

WHEN Miriam Gibson French stepped down as executive director of the Fragrance Foundation, she was able to look back upon the difficult work that she had done with satisfaction. From the day of its inception, if we remember correctly, Mrs. French had been with the Foundation, and very often it looked as if she was the Foundation. We admired without envying her achievements in keeping the subject of fragrance, so difficult to write about from a new angle from one day to the next, almost unceasingly before the American public. We extend our hand of congratulations to her successor, Mrs. Kay Jamesson, with our promise of what little support we might be able to offer, and our confidence that her accomplishments will be many and will be gratifying.

F.T.C. Chairman Outlines Policies

JUST about one year after taking office as chairman of the Federal Trade Commission, Edward F. Howrey delivered a talk to the Drug, Chemical and Allied Trades Section of the New York Board of Trade, in which he outlined several new attitudes, policies, and actions of the F.T.C. We particularly would like to call the attention of our readers to the Bureau of Consultation, recently set up by the Commission, and whose purpose, according to Chairman Howrey, is threefold: to be a cooperating, consultative service to business, particularly small business; to give informal oral advice on matters under the jurisdiction of the Commission; and to seek "voluntary compliance with such laws by means of conferences, stipulations, trade practice rules, and other types of information procedures." We could discuss each of these three projects, obviously worthy, but whose value will in the long run depend upon the method used by the F.T.C. in carrying out these aims. We are particularly pleased to find a government body stating, as a matter of policy, that it will give informal advice on matters under its jurisdiction, rather than insist that a business make a step and, if the Commission considers it a violation, punitive action will then be taken. Although Commissioner Howrey specifically states that the F.T.C. in such instances will not give written advisory opinions, the informal advice should be of inestimable value, particularly in guiding the small company that is unable to pay for extensive legal fees and certainly unable to carry on a struggle against the F.T.C. ruling. Such a company is often faced with the Hobson's choice of compliance (with its loss of labelling, advertising, and other investment) or complete surcease of company operations. A well-administered F.T.C. cannot only do yeoman service in carrying out this policy, but can actually be a forerunner of a more widespread government attitude of advising before the act instead of prosecuting after the act.

Justice Department And Fair Trade

THE Department of Justice is openly hostile to the entire concept of fair trade, according to *American Druggist*, drawing that conclusion from a letter sent by a deputy attorney general, William P. Rogers, to the Senate District of Columbia Committee. Fair trade, Mr. Rogers contends, is "inconsistent with the philosophy of the antitrust laws," and the agreements that are entered into are "price fixing arrangements," without public regulation or supervision, in which "the public interest is not represented at any stage." These arguments are too elementary to require response here, in a magazine read by an industry that has been studying this matter very closely for many years. We do believe, however, that a public education program on the benefits of fair trade for the consumer—not for the retailer—is more urgently needed than ever.

Role of Trade Mark Described at Meeting

A MEMBER of the present administration, Assistant Commissioner of Patents Daphne R. Leeds, had some very kind words to say about trade marks at a recent meeting. Trade marks, Mrs. Leeds declared, are the very essence of competition, the stimulus for advertising and for a free press; they bridge the gap between producer and consumer, and provide freedom of choice in the marketplace. All of which no intelligent reader can gainsay. But is it not apparent that fair trade is the only protection of a trade mark against the onslaught of the price cutter who uses it for a loss leader, and that it is contradictory for one branch of the government to seek to encourage trade mark protection while another branch would destroy the same trade mark by permitting it to become the football in the price wars.

United Kingdom Quota for Toiletry Sales $42,650

A quota of $42,650 has been set for United Kingdom toiletry sales under the British Token Import Plan, the U.S. Bureau of Foreign Commerce announces. The plan, which does not include perfumes and soaps, makes it possible for eligible U.S. firms to send token shipments to the United Kingdom which would ordinarily be barred. Information is available from the British Token Import Plan Unit, British Commonwealth Div., Bureau of Foreign Commerce, U.S. Dept. of Commerce, Washington 5, D.C.

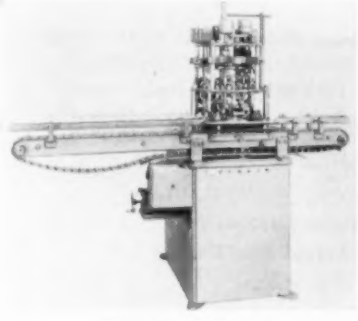
Hints for Improving Production

Small Vacuum Filler

To meet the needs of small packagers Packer Machinery Corp. offers a small vacuum filler. It is equipped with three spout assemblies and is designed to carry up to six spouts thereby anticipating any increase in production on the part of the individual small packager.

Automatic Food Filler

A new automatic food filler with a micrometer adjustment that can increase or decrease the quantity of fill while the machine operates is announced by the F. L. Burt Co. It is stated to fill liquids or semi-solids at 10 to 30 containers per minute and is adjustable from one gallon to eight ounces.



Rotary liquid filler

Miniature Liquid Filler

A new, automatic miniature rotary liquid filling machine designed to fill all sizes and shapes of containers from one-eighth ounce up to 16 ounces is offered by the MRM Co. It is said to be most useful for perfumes and all liquids sold in small amounts. It is suitable for vacum, gravity and volumetric filling, the company states and with eight spots it is capable of speeds up to 150 containers per minute.

Processing Literature

Consulting Services 1953, has been issued by the Assn. of Consulting Chemists & Chemical Engineers Inc. 50 E. 41 St., New York, 17, N. Y. It is the 14th edition and is bound in heavy paper covers and contains 144 pages. It has four sections: Classifier, containing about 200 items of activity with members specializing in the given field indicated by key numbers; Scope pages, describing each member's qualifications and activities; Unusual laboratory equipment owned by members; and a complete index. One copy is available free and additional copies are $1 each.

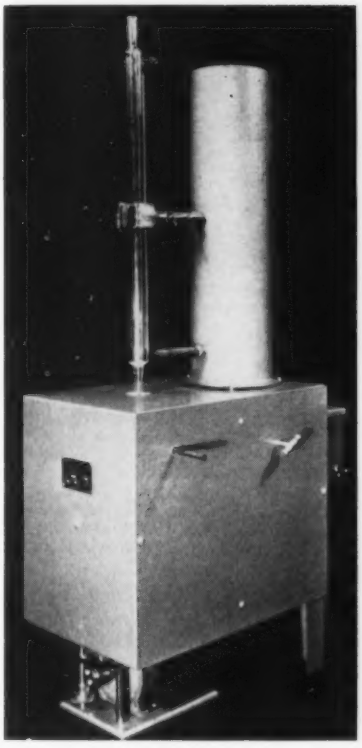
A Program for Profit, the address by President George W. Kauffman of the National Wholesale Druggists Assn., has been reprinted in booklet form. Profits in the drug industry are low and the trend is continually downward. Some sound suggestions to arrest this trend are given in the address. The address is worthy of study by all segments of the industry.

Steel shelving, lockers, ladders and other storage and maintenance equipment for industrial use are covered in the new catalog of the Precision Equipment Co. Aluminum equipment is included.

Air fresh candles to chase household and other odors are being introduced by the Victrylite Candle Co. They combine chlorophyll and the scent of pine in sham-bottom French green glasses. Wrought iron holders are provided. The tumblers are supplied by the Owens-Illinois Glass Co., Libby Glass Division, Toledo 1, Ohio, which has sent out descriptive literature.

Liquid processing equipment made by the Alsop Engineering Corp. consisting of tanks, mixers, filters and pumps, is adequately covered in a 12-page illustrated pamphlet which is available on request.

It Pays to Smell is the subject of an article by Frank Orlandi on the use of perfumed inks which appeared in Advertising Requirements. It has been reprinted in leaflet form for general distribution.



Heated pump

Heated Pump

A heated pump to supply laboratories, pilot plants and industrial plants with a metering pump that will handle small volumes of viscous materials is offered by the Research Appliance Co. The Corson-Cerveny Heated Pump as it is known can be equipped with steam or electrical heating or a combination of both. It may be adjusted, it is pointed out, for various rates while in operation; the jacketed burrett is supplied for checking flow rates and the level in the heated charger.

Ways to make catalogs, reports, price lists and other literature more attractive and useful will be found by the use of stock covers introduced by the General Binding Corp. Designed specifically for use with plastic binding equipment the covers are claimed to provide the final touch in a system for assembling loose pages into good looking literature in the office or plant in a matter of seconds. A cover manual containing full sized samples of each cover style, material and color swatches, facts about cover decoration available and details about various decorating process is available for $1.

KOMMON/ SCENTS!

Aftermath of the meeting between President Eisenhower and Winston Churchill makes "Co-Existence" the big word. Unfortunately, a new word for a problem isn't the same as resolving the problem itself.

• • •

There was a lot of nostalgia in the handclasp on American soil of the British and American leaders. Even the cynics had to admit that when Churchill opened his hand it held America's heart not our money.

• • •

The effect of the meeting on Russian observers was profound. They have so little experience with a handshake that isn't related to Judo or the lifting of fingerprints by the secret police.

• • •

Still up for grabs are the questions of Indo-China, Korea and the unification of Germany. To date, our side agrees that the Russians won't agree to anything. This makes Security as much a problem for psychiatrists as military leaders.

• • •

At the risk of indelicate taste, one must observe that the predicted succession to Premiership by Anthony Eden seems a long way off. As a matter of fact, the way Churchill is going, he may yet serve as leading pall-bearer for both Molotov and Eden.

• • •

The matter of Formosa must've come up again in the Churchill-Eisenhower talks. Because so much has been undisclosed, it is still tough to decide whether our fleet is protecting Chiang Kai-shek from Red China, Red China from Chiang Kai-shek or the United States from both of them.

• • •

The Cosmetic Industry thrilled to Anglo-American defense efforts that brought the aged Churchill across the Atlantic. In fact, America never had such a big dock party since the last British colonial governors journeyed across the Atlantic back to England.

George Fiedler

KELTON

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Flavor Section

Polyfunctional Ketones

Utilization as flavoring components . . . Physical and application properties . . . Problem of nomenclature

MORRIS B. JACOBS, PH. D.

THIS department of the American Perfumer has received several queries recently concerning polyfunctional ketones and several other compounds as a result of articles by your editor and by Benezet.

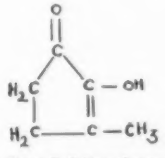
In the articles of the latter author, the compounds methylcyclopentenolone, methylcyclopentenolone butyrate, and methylcyclopentenolone acetate are mentioned. Some difficulty has been encountered by readers in recognizing these compounds since adequate nomenclature has not been used nor have the more familiar names under which these compounds are sold in this country been used.

From time to time I have written articles stressing the value of the use of proper nomenclature as an aid both to the flavor chemist and the flavor manufacturer but it must be acknowledged that lack of enthusiasm for proper nomenclature is a failing which is generally prevalent.

Among the compounds in which some difficulty in nomenclature is encountered are the cyclopentenolone compounds mentioned above, maltol, and alpha-irone. I think it will be helpful to review some of the physical and application properties of these compounds.

Polyfunctional Ketones

Hydroxymethylcyclopentenone. 2-Hydroxy-3-methyl-2-cyclopenten-1-one (methylcyclopentenolone) is a crystalline solid having a maple-licorice taste



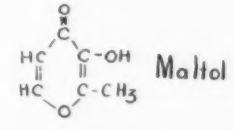
2-Hydroxy-3-methyl-2-cyclopenten-1-one

with a walnut note. It is sold under a trade mark as Cyclotene. This material melts at 105-107° C. One gram of Cyclotene dissolves in 31 ml. of water, or 4 ml. of ethyl alcohol at 25° C. It is also soluble in glycerol and propylene glycol. It is a stable compound in acid solution but iron causes discoloration and it is decomposed by alkali.

As one might conclude from its taste, Cyclotene is suggested for use in maple, walnut, and pecan flavor formulations and for the fortification of the respective natural extracts. Relatively low concentrations are required. Thus 10-15 parts per million give maple effects and only 5 parts per million are required for walnut effects. It has also been suggested for use in vermouth and brandy flavors and along with such essential oils as coriander and lovage.

In several of the formulations detailed by Benezet methylcyclopentenolone acetate and butyrate are listed as components. For instance, the former is given as an ingredient of artificial hazelnut and walnut flavors and the latter as an ingredient of walnut and currant flavoring compositions. These compounds are not carried as common stock items by firms dealing in aromatic chemicals but can in all likelihood be supplied by the manufacturer of the parent alcohol-ketone.

Maltol. Maltol or 3-hydroxy-2-methyl-4-pyrone is a crystalline material



with a molecular weight of 126.1 which melts at 161-162° C. and begins to sublime at 93° C. It is soluble in alcohol and relatively soluble in hot water. About 1 gram is soluble in 85 ml. of water at room temperature.

Palatone is the registered trade mark of a crystalline material having a molecular weight of 126.1, formula $C_6H_6O_3$, which melts at 160-163° C. About 1 gram of this material is soluble in 72 ml. of water at 25° C. One gram of Palatone dissolves in 21 ml. of ethyl alcohol, in 23 ml. of propylene glycol, and in 60 ml. of glycerol at 25° C.

Palatone in solid form has an odor reminiscent of caramel and butterscotch. The alcoholic solution, however, has a distinct fruity character resembling pineapple with a strawberry note. Palatone has been suggested as a replacement for coumarin in vanilla formulations; as a component of cola, root beer, cherry, and pineapple beverage flavors; in imitation fruit flavors of the berry type such as strawberry and raspberry particularly along with α-ionone; for the flavoring of wines; and in general in

confectionery and bakery product flavors.

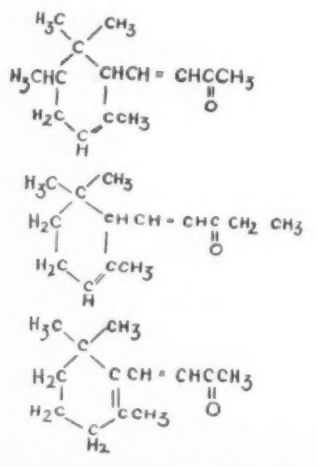
Methoxyphenylpentenone. 1-*p*-Methoxyphenyl-1-penten-3-one, $CH_3C_6H_4CH{:}CHCOCH_2CH_3$, also known as δ-methylanisalacetone, and by trade names such as Ethone is a white to pale yellow crystalline material which melts at 60.0° C. It has a sharp dry odor with a slight buttery note. This polyfunctional ketone has been recommended for use in berry flavors, in maple flavor, and for other flavors. It is stable and does not discolor readily.

Alpha-Irone. Relatively recently a relatively highly purified alpha-irone was made commercially available. This was the outcome of the work of Naves and his collaborators.

This compound is one of the isomeric methylionones but it should not be confused with the Raldeines which are also sisomeric methylionones. A comparison of the structural formulas will show the differences among these compounds.

It can be seen that alpha-irone may be named as a 4-(2,5,6,6-tetramethyl-2-cyclohexenyl)-3-buten-one; beta-ionone is 4(2,6,6-trimethyl-1-cyclohexenyl)3-buten-2-one; and alpha-emthylione which is also known as cyclocitrylidene ethyl ketone is 5-(2,6,6-trimethyl-2-cyclohexenyl)-4-penten-3-one.

Various fruit flavor formulations have been considered as complimented by the use of alpha-irone but it has been especially recommended for raspberry flavor essences. This compound has a number of advantages over orris as an ingredient of flavors. For example, since it is a pure chemical compound it can be manufactured so that each lot is uniform in flavor power. It has been found that alpha-irone does not have the bitter character of orris nor does it have the floral notes of some of its isomers. Too much floral character is often considered undesirable in the formulation of flavors. This compound has found utilization in a number of flavor formulations.



Top to bottom: alpha-irone; alpha-Methlionor (Raldeine type); beta-Ionone.

Abstracts

Carcinogenic Effect of Smoked (Food) Products. Dietrich Schmahl and Albert Reiter (Univ. Freiburg i. Br., Ger.). *Z. Krebsforsch. 59,* 397-401 (1953) Oral administration of 3 g./day heavily smoked bacon caused 1 tumor in 31 rats observed 1000 days. Intraperitoneal or subcutaneous injection of the unsaponifiable part of 500 g. smoked meat caused no tumors. A total dose of 8 g. tar from the smoking chamber fed for 740 days induced 1 sarcoma and 2 benign tumors in 31 rats. An intraperitoneal implant of 0.5 g. tar gave a cholangioma after 625 days.

Hair Restorer. Leopold Makoru. AUSTRIAN 176,950, Dec. 10, 1953.—A hair restorer is made by finely comminuting, soaking, and extg. with H_2O at 75-95° for approx. 90-140 min. the stems, leaves, and roots of nettles (*Urtica dioica and U. urens*) burdocks (*Arctium lappa*), gentian (*Gentiana lutea*), St. John's wort *Hypericum perforatum*) the ext. then being made into an ointment with beef-marrow fat as the ointment base. Preferable, the plant: H_2O: fat ratio is 1-6: 1: 0.4. Friedrich Epstein, through *Chem. Abs.*

Arsenic in the Hair: H. Griffon and J. Barbaud (C. R. Acad. Sci., Paris, 1951, 252, 1455; Jour. of Pharmacy and Pharmacology, Vol. II, no. 11, Nov., 1951). The presence of arsenic in the hair has been followed by exposing the hair to thermal neutrons, so that the arsenic in it becomes artificially radio-active, a correction being applied for the other elements normally present which also become radio-active. Comparison with chemical analyses carried out on the same lengths of hair showed satisfactory agreement.

Aluminum Sulfamate Antiperspirant. Lester D. Apperson and Earl L. Richardson (to Colgate-Palmolive-Peet Co.). U.S. 2,586,287, Feb. 19, 1952. Al sulfamate (I) combined with a compd. contg. the group CSH forms an antiperspirant prepn. without discoloring the fabrics. I 5-50% and Na 2-mercapto-1-ethanesulfonate, NH_4 2-mercapto-1-ethanesulfonate, NH_4 thioglycolate, thioglycolic the presence of fats or oils. C.A. *46,* 4, 1724(1952).

Notes on the News

Changing Attitude Toward Dyed Hair

IT is sometimes difficult to grasp a period of change as one lives through it. An exception, however, can be recorded in the case of hair dyes, or more exactly, the case of dyed hair. A generation ago, it was a matter of shame for a woman to bear the reputation of having dyed her hair. The color of the hair had to be that of nature, or it was not so much a tint as a stigma. A woman's beauty might be enhanced by obviously painted lips, painted nails, and roughed cheeks, but to be a "bleached blonde" was synonymous with being of ill repute. How far have the cosmetic and beauty culture industries advanced in the breakdown of this prejudice? Great strides have been made, but it would be foolhardy to believe that there is as little stigma attached to artificially colored hair as to made-up nails or lips. The changing attitude toward dyed hair is presently taking place, encouraged by advances in cosmetic formulations that have made new products better and safer. But of perhaps greater significance is that the hesitation governing the propriety of use of hair dyes probably constituted the last area of anti-cosmetic feeling among women. With the victory over this prejudice, the triumph of cosmetics as being acceptable and respectable will have been completed.

They're Learning Charm On the Company Time

WE learn with deep gratification that a number of firms in Chicago are endorsing a plan to give their female employees small classroom instruction, on their premises, in good grooming and physical charm. She is taught everything from make-up to fashion, from care of the skin to modulation of the voice. Because these courses will lead to the proper use of cosmetics, therefore they will lead to the greater use of cosmetics. This would therefore seem to be an educational movement worth looking into, for our industry—and such factors in it as The Fragrance Foundation—to investigate and possibly sponsor, furnishing educational material so that instruction will be along lines beneficial not only to the students but to industry as a whole.

Soap Section

Use of Lanolin Derivatives in Soap

Different forms of lanolin available, each with different properties and suitability for specialized applications . . . Points to bear in mind in selection of superfatting agent

PAUL I. SMITH

THERE are literally dozens of lanolin derivatives now commercially available and several of these are of direct interest to manufacturers of toilet soaps, particularly the high priced cosmetic soap produced for the luxury trade. Apart from pure neutral lanolin in liquid form, which has an iodine value of 27 and a saponification value of 95 with a viscosity at 40 deg. C. (Red No. 1) of 2,300 seconds, there are various lanolin salve-like and waxy products containing 2.5%–5% cholesterol. These are practically odourless and melt easily on contact with the skin.

Cholesterol derived from lanolin is available in several grades of purity. The purest form is a white free-flowing waxy powder having a melting point of 148 deg. C., an acetyl value of 135 and an iodine value of 68.3. The so-called semi-refined grades of cholesterol are either cream or ivory coloured powders with much lower melting points, 80–87 deg. C., iodine values 40–63 and saponification values averaging about 12. These commercial grades are economically more acceptable to industry than pure cholesterol.

High cholesterol grades of lanolin possess excellent emulsifying properties and are of interest for the production of a number of specialized soaps and cosmetics. Hydrogenated lanolin, either fully or partially hydrogenated, is a white waxy solid resembling cetyl alcohol. It has a drop point of 40 deg. C., acidity 0.15%, acetyl value 106, iodine value 16 and a saponification value about 11–12. This compound is useful as a super-fattening agent which is able to improve the texture and appearance of the soap.

Another range of lanolin products of interest to the modern soaper includes the so-called wool wax or lanolin alcohols, which are normally yellow or brown waxes, depending on the purity, containing about 30% cholesterol. Because of their extremely high cholesterol content, these compounds are excellent emulsifying agents and pigment dispersers. They are useful in making medicinal soaps where it is necessary to dispense insoluble or difficult soluble substances in the soap.

In addition to the normal range of insoluble lanolin alcohols, there are also water soluble alcohols which are polyoxyethylene derivatives. These have a low cholesterol content, not much more than 3%, and are soft, brown coloured waxes having a drop point of 50 deg. C.

It will be thus apparent from the above list of products that lanolin is a most versatile material, available in a number of different forms, each one possessing individual properties or characteristics and suitable for specialized applications. In choosing a form of lanolin for use as a super-fatting agent the following points should be borne in mind:

1. Is the product free from odour?
2. Has it a neutral reaction?
3. Is it ionically acceptable? (Some of the lanolin derivatives are non-ionic.)
4. Is it white or light coloured?
5. Does it melt and mix easily?
6. Is it readily absorbed by the skin?

Improved Shampoo

TO overcome the marked degreasing action of shampoos based on synthetic detergents, it is becoming a fairly common practice to incorporate in the cream so-called hair conditioners, such as cholesterol, lecithin and various kinds of both mineral and vegetable oil. In soap synthetic mixtures, which are growing in popularity, owing to their less drastic action on the hair and scalp, the addition of glyceryl monostearate is recommended, either alone or in conjunction with the alginates. The latter are considered to be excellent additives for improving the consistency of the cream, and moreover they do not have a depressing effect on the lather formation. Another useful additive is glycerine or sorbitol, which improves the stability or ageing properties of the product and helps to prevent the hair from dry-

ing out too harshly. It is advisable to keep the percentage of mineral salt constituents, such as the soluble phosphates, down to a minimum as they tend to render negative the action of hair conditioners.

Precipitated Chalk as a Soap Filler

SOME use is made of precipitated calcium carbonate as a filler in soap making and it is, therefore, of interest to consider the most suitable forms of this mineral for this specific application. Precipitated chalk is pure calcium carbonate in the form of a fine white microcrystalline powder. It is entirely without taste or smell and is only very slightly soluble in water. Many different grades of precipitated calcium carbonate are available, varying in crystalline form, size of particles and degree of aggregation, thus the manufacturer is able to choose a type best suited for his particular purpose. The soap manufacturer generally requires a grade possessing good bulking properties and made up of particles between 4 and 16 microns, and with an apparent density of 0.500–0.588 (G/ML). The aragonitic form of precipitated chalk with the ultimate particles acicular in shape is preferred by many soapers.

Paul I. Smith

New Anti-Oxidant for Soap Fats

THE results of tests carried out by P. Desnuelle and collaborators at the Laboratoire Nationale des Matieres Grasses, Marseille, have shown that dodecyl and hexadecyl hydrogen sulphates have an anti-oxidant effect on oils and fats. The compounds are produced by strong acidulation of the neutral sulphates with hydrochloric acid and extracted with ether and the extraction agent is then evaporated. It is reported that small percentages of the anti-oxidants are effective in preventing deterioration of fats and the process is being examined by soap manufacturers in France.

Preventing Off-Colour In Shaving Creams

A COMMON cause of off-colour in shaving creams is metallic contamination which although in itself may be relatively harmless, or without any visible effect on quality, is known to exercise a catalytic action and promote the formation of off-colour by-products. A sure way to safeguard colour and quality is to use inert materials for the mixing equipment, e.g. glass lined vessels, nickel, stainless steel and special alloys, preferably having an extra smooth finish that facilitates mixing. The new sodium hydride finish makes equipment extra easy to keep clean. Generally speaking, nickel clad steel mixing equipment is the most popular for processing high grade creams and similar compositions.

Paul I. Smith

Abstracts

Bleaching Waxes, Fats, and Similar Materials. Sandoz Ltd. *Swiss.* 285, 144, Dec. 16, 1952 (Cl. 38a). The following compds. are useful optical bleaching agents for fats and waxes in 0.001-0.002% concn: 7-diethylamino-4-methylbenzo-a-pyrone (7-diethylamino-4-methyl-coumarin), 7-di-methylamino-4-methylbenzo-a-pyrone, 7-ethylamino-4-methylbenzo - a - pyrone, 7-diethylamino-3 4-dimethylbenzo-a-pyrone, 7-methylamino-4-methylbenzo-a-pyrone, and 7-amino-4-methylbenzo-a-pyrone. In an example, 100 g. of tech. yellowish stearic acid was melted at 80° with 0.002% 7-diethylamino-4-methylbenzo-a-pyrone. The mixt. was cooled and the resulting product showed greatly enhanced whiteness. *R. G. Rowe.* Through *Chem. Abs.*

Refining of Wool Fat. Herbert J. Passino and James M. Meyers (to M. W. Kellogg Co.). U.S. 2,649,466, Aug. 18, 1953. Wool fat is decolorized and refined by neutralization and solvent extn. with C_3H_8 in a tower by using a solvent-fat ratio of not less than 3:1, a top tower temp. of 270-320°F., a tower bottom temp. of 140-220°F., and a residence time of not less than 30 min. The decolorized product can be fractionated into wax and oil by auto-refrigeration of the C_3H_8 soln. and subsequent filtration of the pptd. wax. *H. S.* Through *Chem. Abs.*

The Effect of Washing With Soap and With a Detergent on the 4-Hour Sebaceous Secretion in the Forehead. J. E. Kirk, M.D. and H. Efferse, M.D. *The Journal of Investigative Dermatology,* Vol. 22, No. 4, 257, (1954). In a previous study by Johnsen and Kirk (4) no certain effect was observed on the rate of sebaceous secretion in the dorsal region of the hand from washing with soap and with a detergent. Although observations on the lipid secretion on the hand are of particular interest from a practical point of view the low rate of lipid secretion on the back of the hand (average secretion about 13 micrograms per cm. per 24 hours) makes this skin area less suitable for investigations on the sebaceous secretion process. It was, therefore, considered of interest to carry out a similar study on a skin area which normally possesses a high rate of sebaceous secretion. In the present investigation the central region of the forehead was chosen as the area for study. This skin region not only possesses a high rate of sebaceous secretion but because of its accessibility is convenient for skin lipid collections. **Summary.** A study was made in 25 elderly subjects of the effect of washing with soap and with a detergent on the 4-hour sebaceous secretion in the central region of the forehead. The experiment with each preparation lasted four weeks. No significant difference was noted between the lipid secretion values for the periods in which soap and in which detergent were used for washing. Through *Chem. Abs.*

Bacteria Removal by Hand Dishwashing Detergents. Lawrence Flett and Albert Guiteras. Soap Sanit. Chemicals 28, No. 10, 48-50 (1952); cf. C. A. 45, 5428c. A technique developed for detg. bacteria on a dinner plate was based on transferring agar from a Petri dish to the plate, incubating, and observing bacterial growth. The effect of a few dish cleansers, drain drying, towel drying, and air-borne bacteria on the no. of bacteria on plates was detd. There was no relation between residual bacteria on dishes and the no. of bacteria in dish water. With soap, where bacteria of wash water increased 20 times, the bacteria counts on plates were constant within exptl. error. An anionic detergent was more efficient than soap for washing to low bacterial count. Chem. Abs. *47,* 1, 334, 1953.

New Products

and Developments

Gum from Guar Seeds

A new gum extracted from cultivated guar seeds offered by the Burtonite Co., has unique properties as a protective colloid, thickener and film forming agent according to the maker. It is supplied as a free, white flowing powder that is claimed to pass through a 175 mesh screen. It is soluble in cold and hot water and insoluble in organic solvents. It is claimed to be ideal for thickening water while providing colloidal stabilization. Full details about its properties and uses, particularly in making heavy bodied shampoos will be sent on request.

New Sunscreening Agent

A new sunscreening agent effective at a level as low as 0.5% which is said to have proven effective in blocking ultra violet wave lengths between 2900 Angstrom units and 3150 Angstrom units, the erythema producing rays of sunlight, is offered by Givaudan-Delawanna Inc., 330 W. 42nd St. New York, 36, N. Y.

Three New Oleoresins

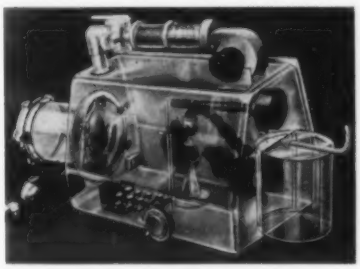
Three additions have been added to the line of oleoresins offered by Fritzsche Brothers Inc., 76 Ninth Ave., New York, 11, N. Y. They are oleoresin black pepper new, oleoresin sage Dalmatian and oleoresin pimenta berries. Working samples may be had by writing to the Flavor division of Fritzsche Brothers Inc.

Colloidal Suspension of Lanolin

A colloidal suspension of lanolin under the trade name of lanosol is offered by the Robinson-Wagner Co. Inc. A descriptive bulletin outlining its properties and advantages in formulating cosmetics as well as samples may be had by writing to the company.

Point of Purchase Lamp

A display unit resembling a smart table lamp is offered by the Ad-Color Photo Corp. The Ad-Around, as it is known, displays full color transparencies and product packages may be displayed on top of the lamp. A sealed electric motor rotates the lamp four times a minute. The lamp it is pointed out affords light, color and motion, three essentials for successful point of purchase display.



Atmosphere control hood

Atmosphere Control Hood

A new light weight isolation and atmosphere control hood made of clear plastic material is offered by the P. M. Lennard Co. Inc. The photograph shows the worker through the back view of the hood. The hoods are designed to serve every purpose requiring controlled conditions during laboratory research. Means for providing complete atmosphere controls are provided.

Commercial Quartz Shapes

For micro and ultra micro analytical work commercial quartz shapes are offered by Microchemical Specialties Co. They are said to be remarkably transparent and provide highest transmission of ultra violet and visible radiations. The items include beakers, boats, flasks, graded seals, ground joints and capillary pipets.

Cordial and Liqueur Flavors

A new line of flavors specifically developed for cordials and liqueurs has been completed by the flavor laboratories of Dodge & Olcott Inc., New York, N. Y. The new group includes cherry brandy, apricot brandy, creme de menthe, cassis concentrate and amosette; and suggested formulations are available.

Temperature Humidity Cabinet

For any tests involving 90-100 per cent relative humidity from 4 deg. C. up to 70 deg. C. dry bulb temperatures, new constant temperature humidity cabinets are offered by the Blue M Electric Co. They are offered in four standard sizes with from one to nine cu. ft. chambers.

Magnifying Glass

A rectangular self focusing magnifying glass that enables the reader to see a complete line at a glance is offered by the J. B. Sebrell Corp. with the suggestion that it would be a most acceptable premium.

Special Instrumentation

A special products division for the development of special instruments and instrument components to contract specifications has been announced by the Fischer & Porter Co.

Cork Grip

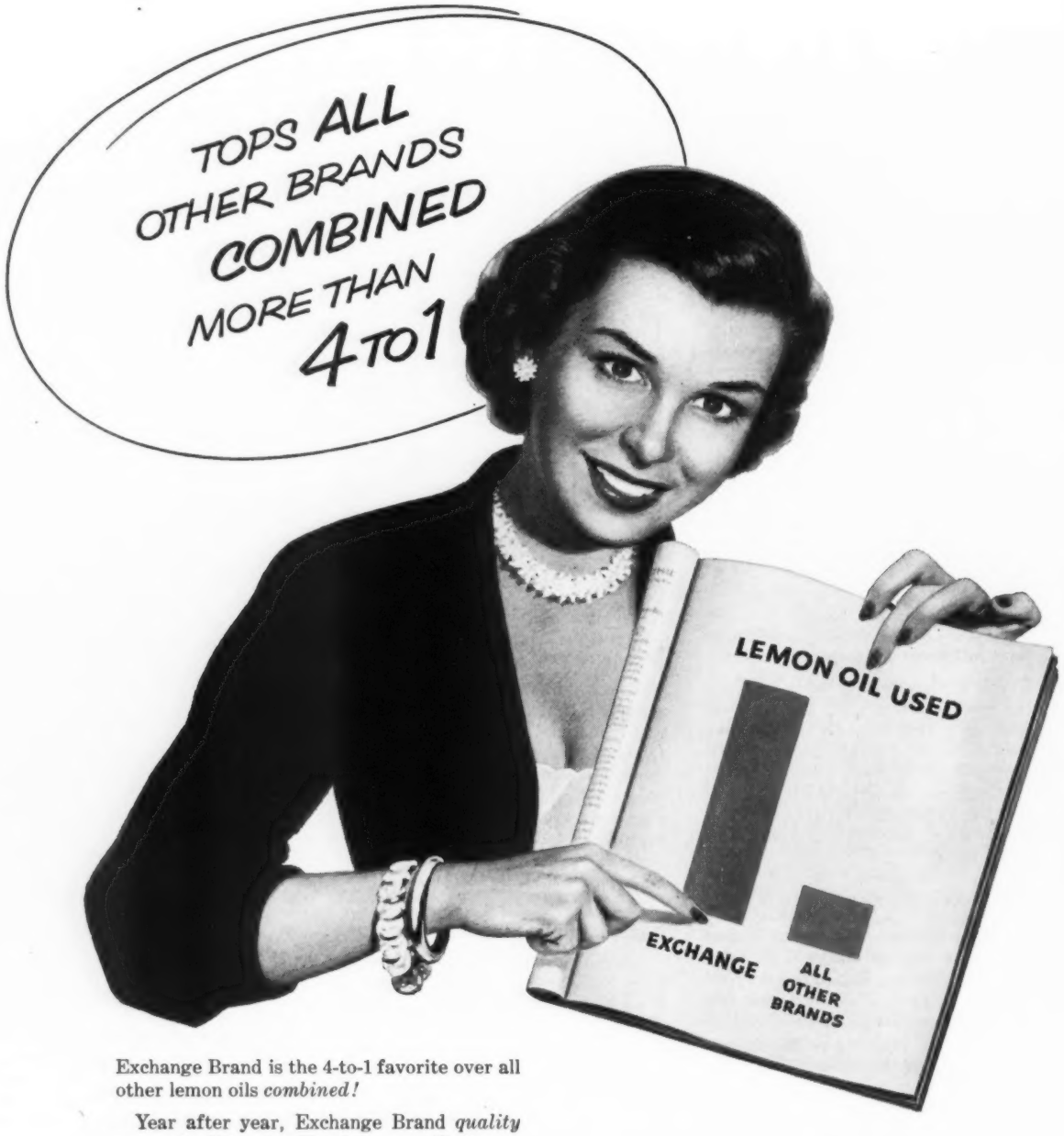
For cementing cork to decorative glass stoppers Adhesive Products Corp. offers a new adhesive, Cork Grip, which is stated to be resistant to alcohol.

Trade Literature

Perfumes for sanitary specialties and soap and shampoo perfumes offered by Naugatuck Aromatics, Div. of U. S. Rubber Co., 254 Fourth Ave., New York 10, N. Y., are listed with prices in bulletins 4 and 5 which may be had by writing to the company.

Procedures for obtaining a variety of surface active end products from the sulfonation of alkyl benzene are contained in a technical bulletin published by the phosphate division of the Monsanto Chemical Co.

For those interested in piping problems and pressure vessels the first issue of the *Taylor Forge* issued by the Taylor Forge & Pipe Works contains much useful information. A copy may be had for the asking.



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Technical Abstracts

Product with Ambergris-Like Odor. Firmenich & Cie. (Successors to Societe anon. M. Naef & Cie.). Swiss 285,126, Dec. 16, 1952 (Cl. 36_0). Elimination of acid from a (2, 5, 5, 9-tetramethyl-2-acyloxydecahydro-lnaphthyl) acetaldehyde (I) by pyrolysis yields a mixt. of 3 unsatd. aldehydes with an ambergris-like odor. Thus, the neutral fraction from the ozonolysis of sclareoloxide, which contains I where acyloxy-acetoxy, was distd. with Cu bronze at 15 mm. Hg to complete elimination of AcOH; the product $b_{0.01}$ 100-5°, $d^{20}4$ 0.993-0.995, $n^{20}D$ 1.512-1.514, ambergris-like odor, semicarbazone m. 223-5°.

Pearls as a raw material for Toilet Goods. Masao Takahashi. Japan. 4750 ('52), Nov. 14. Pearl scraps or the pearl layers of pearl oyster shells are dissolved in HCl, the HCl removed, and the residue at pH 4.5-5.0 kept overnight. The soln. is treated with hot alc. $HgCl_2$ and an aq. soln. of NH_4 stearate to ppt. a complex salt of Hg with decompd. pearl protein and stearic acid at a pH of 7.0-7.5. The salt has antiseptic and astringent properties.

Ammoniated Dentifrice Containing Anhydrous Dicalcium Phosphate. Arnold J. Singer (to Amm-I-Dent, Inc.). U.S. 2,647,073, July 28, 1953. $CaHPO_4$ is used as the polishing or abrasive ingredient in dentifrices of the ammoniated type. Such dentifrices are said to have superior polishing characteristics and to be less subject to caking or hardening. A typical formula is as follows: H_2O 16.66, urea 13.00, detergent 2.00 humectant 22.50, $CaHPO_4$ 5.00, Ca_3PO_4 35.64, thickening agent 0.28, flavoring agent 1.92, and $(NH_4)_2$ HPO_4 3.00% by wt. *David P. Wagner.* Through *Chem. Abs.*

Hair Treatment. Virgil A. Gant (to Northwestern Research Corp.) U.S. 2,643,375, June 23, 1953. An organosilicon polymer (I) is used to straighten out kinky hair or for curling straight hair. The hair is first shampooed, dried, and I, i.e. polysiloxane, is applied in dispersion. A metallic comb heated to 300° F. is passed through the hair to straighten it out or curl it permanently. This method does not discolor or injure the hair. *Joachim Anschel.* Through *Chem. Abs.*

Hair Tinting. Frederick M. Lipman (to Charles Marchand Co.). U.S. 2,645,595, July 14, 1953. A concentrate for tinting of dry hair contains nontoxic acid dyes and phenylphosphonic acid. Buffers or diluents, i.e. $(NH_3)PO_4$, sugar, or boric acid, may be added. *J. A.* Through *Chem Abs.*

Treatment of Wool Grease. John P. Stanley (to Mohawk Carpet Mills.). U.S. 2,665,282, Jan. 5, 1954. Wool grease or lanolin is modified by partial oxidation so as to render it readily emulsifiable. For example, 10 kg. of crude (neutral) lanolin is placed in a closed vessel provided with means of heating and stirring. To this is added 1.5 l. of 10% NaOCl soln., with stirring, followed by the addn. of 0.2 l. of 50% H_2SO_4. The mixt. is then stirred well, allowed to stand for about 16 hrs. at room temp. (21-4°), and then heated

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at 100° for about 1½ hrs. The mixt. is then washed 3 times with a vol. of H20 equal to twice the vol. of the mixt. by stirring, heating to above the m.p., and then cooling; then the H_2O, is drawn off. The washed product is then heated to the m.p., and approx. 25 kg. of H_2O, heated to approx. the same temp. and contg. sufficient KOH to make the resulting mixt. alk. to litmus is added to the melting wool grease product with thorough stirring. This results in a smooth emulsion of the oil-in-water type. Through *Chem. Abs.*

Loss of Weight of Odorants. R. W. Moncrieff, Perfumery Essent. Oil Record *44*, 346-7 (1953). Considerations which seem to afford a satisfactory explanation for the extreme smallness of the loss of wt., which is consistent with continued manifestations odor, are discussed. They also indicate the way to a new olfactory concept, which points to a min. mass of an odorant that it is possible to smell. This mass will vary from one substance to another but will be a const. which may be called the olfactory mass for any one substance, and which will be much smaller for a more powerful odorant than for a substance with only a weak odor. The crit. olfactory mass for any one substance will be a function of its mol. wt., its vapor pressure, and of an olfactory const., which will be a characteristic of that substance. Through *Chem. Abs.*

Effects of Chronic Heat and Humidity Excess Upon Dermal Permeability. Michael M. Clay and John W. Nelson. *J. Am. Pharm. Assoc. Sci. Ed.* XLIII, 4, 222 (1954). The effect of prolonged treatment with high environmental temperature and humidity upon dermal permeability of the rat was studied. The decrease in permeability which resulted was not altered by adrenalectomy and was altered to a relatively minor degree by elimination of the unfavorable environmental factors. Through *Chem. Abs.*

Elevated Temperature Effects on Emulsion Stability. H. P. Levius and F. G. Drommond (Univ. of Colorado, Boulder). *J. Pharm. and Pharmacol. 5*, 743-55; discussion 755-6(1953). Effects of elevated temp. as an artificial breakdown stress are proposed as a basis for evaluation of emulsion stability. Methods utilize size frequency analyses and globule counting with the former considered to give a more complete and reliable picture of the internal state of the emulsion. Through *Chem. Abs.*

The depilation of Sheepskins with Enzymes. J. M. Gillespie (Commonwealth Sci. Inc. Research Organization, Melbourne). J. Soc. Leather Trades' Chemists *37*, 344-53 (1953). Concd. filtrates from surface cultures of Aspergillus parasiticus completely loosened wool on sheepskins when applied to the flesh side as a paint contg. 0.5M $ZnCO_3$ and O.1 M Na SO and thickened with clay. The optimum pH and temp. were 7.0 and 35°, resp. Enzyme concns. of 0.4, 0.75, 1.0, and 2.0% required 40, 24, 16 and 4 hrs., resp., for wool loosening. Control pieces run with each expt. showed no wool loosening in 48 hrs. Similar prepns. from cultures of A. oryzae were more active and did not require a Zn salt for activation, but they appeared to damage the pelt. Other molds showing depilatory activity were A. fumigatus, A. effusus, A. ochraceus, A. wentii, and Pencillium griseo-fulvum. Culture filtrates from 4 species of bacteria isolated from wool roots recovered from sweated sheepskin and homogenates of pig pancreas showed dipilatory activity inferior to that shown by the aspergilli. No activity, in the presence or absence of activators, was shown by the com. enzymes papain, trypsin, pancreatin, chymotrypsin, pepsin, erepsin, amylase, lipase, malt diastase, taka-diastase, Arazyme N, and Oropon F. Through *Chem. Abs.*

Estrogenic Substances in Normal or Pathologic Tissues. Luigi Piacentini and Giuseppe Montella (Univ. Bologna, Italy). *Bull, assoc. franc. etude cancer 37*, 135-47 (1950). Substances with estrogenic effect (demonstrated on adult castrate rat by the Allen-Doisy test) were found in 33% of healthy human tissue specimens, in 50% of specimens from benign tumors, and in 61.5% of specimens from malignant tumors. The precise nature and origin of the estrogens are not known. The results agree with the chem. and biol. affinity between estrogens and carcinogens. *M.H.P.* Through *Chem. Abs.*

Perfume Fixative. Robert W. Philippin. U.S. 2,643,212, June 23, 1953. A mixt. of natural essential perfume oils contg. terpenes mixed with an aliphatic alc. is distd. fractionally, and the residue sapond. in alc.-alkali soln. in the presence of a ketone. One of the distd. fractions is added to the sapond. residue, and a product is obtained which has prolonged scent-retaining characteristics. *J. A.* Through *Chem. Abs.*

Notes on the Perfume of Almond Flowers. M. G. Jgolen (Establiss. A. Chiris, Grasse, France). *Riv. ital. essenze, profumi, piante offic. olii vegetali, saponi 35*, 505(1953.)—From the almond (*Amygdalus communis* var. *dulcis* and var. *amara*) a waxy, red ext. (I) was obtained by petr. ether extn., m. 58°; yield 0.0128-0.0135%. Purified by 95% EtOH, I. gave a red sirup; yield 42%. By vacuum steam distn. a colorless oil with acid no. 25.2 and ester no. 81.2 was obtained; yield 12%. They obtained cresol and eugenol, traces of caproic acid, 1-decanol, geraniol and phenethyl alc. C. Scandura, through *Chem. Abs.*

North Dakota volatile oils. III. Comparative studies on coriander oil. C. E. Miller (*J. Amer. pharm. Ass.*, 1952, *41*, 598).—The physical and chemical properties of oil from the entire plant were similar to those of coriander herb oil. A yield of 0.38% of oil was obtained from the dried ripe fruit, and this differs considerably from the herb oil, having

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higher contents of linalol, linalyl acetate and aldehyde. J. Caley. Through *Brit. Chem. Abs.*

Essentials of Perfume Compounding. XIII. The Anthranilates. Charles Morel. Soap. Perfumery and Cosmetics *24*, 1009-12, 1022 (1951); cf. C.A. 45, 10512h. The d., $n^{2}D^{\circ}$ b.p., percentage ratio of alc. to acidic radicals, odor, and perfume application properties of 25 anthranilates are detailed. The effect of these compds. on the color of perfumes is also discussed. **XIV. Eugenols.** Ibid. 1113-16, 1227. The same factors are detailed for 13 eugenols. **XV. Hexyl Esters and Caproates.** Ibid. 1227-31. These factors are described and tabulated for 29 compds. **XVI. Heptyl Esters and Heptylates (Enanthates:).** Ibid. 25,57-61 (1952). These factors are described and tabulated for 32 cmpds. Morris B. Jacobs. Chem. Abs. *46*, 10, 4740.

Effect on Blood of Application to the Skin of Fatty Excopients. P. Pinetti (Univ. Cagliari, Italy). *Boll. soc. ital. biol. sper. 28*, 133-4(1952).—Leucocytes of 80 subjects varied a max. of 20%. Most of the subjects after application of petrolatum and lanolin exhibited a quick transitory fall in no. of white cells and, in 57% of the cases, this exceeded the 20% normal variation. Some relation was found to the amt. of surface covered, but diseased and healthy skin reacted similarly. Max. change in blood was found at 30 min., and at 2 hrs. the starting value was found. The addn. of 10% tar to the petrolatum increases the frequency of occurrence to 74%, but not the intensity of the effect. M. Elliott, through *Chem. Abs.*

Studies of Waxes. III. The alcohols of carnauba wax. K. E. Murray & R. Schoenfeld (Commonwealth Sci. Ind. Res. Org., Melbourne, Aus.). J. Am. Oil Chemists' Soc. 28, 461-6 (1951); cf. Hatt, et al., C.A. 44, 11135h. A study was made on the compn. of the nonsaponifiable portion of carnauba wax by acetylation followed by fractionation in a spinning-band column by using both simple and amplified distn. The straight-chain alcs. of even C. numbers present were: below C 1, C (plus C), 4, C 5, C 14, C 51, and C 22 per cent. In addn. 3 high melting alcs., 2% of the wax alcs., were isolated and appear to be closely related to glycols. The hydrocarbon fraction, m. 63.0-63.5°, was less than 1 per cent of the nonsaponifiable fraction and was considered a mixt. Chem. Abs. 46, #1.

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Book Reviews

VEGETABLE FATS AND OILS, by E. W. Eckey. Reinhold Publishing Corp., New York 36, N. Y., 1954. 836 pages, 6 x 9 inches, indexed and illustrated. A.C.S. Monograph #123. Price $16.50.

The well known A.C.S. Monograph #58 of the same name written by G. S. Jamison is completely rewritten and enlarged by author Eckey with a chapter by Lawrence P. Miller of the Boyce Thompson Institute. Jamison's book has been a standard reference for many years but is out of print. So, the newly written work will be welcomed by all interested in the vegetable oils and fats. The author's intention is to write a book containing the "main facts about the chemistry of the vegetable fats in general . . . together with reviews of the data and information available concerning each of the individual vegetable fats which has been investigated to any considerable extent."

The use of tables of physical and chemical constants of fats of a related group, dispersed throughout the text, is to be commended.

All of the common and many of the uncommon vegetable oils are listed together with the properties of the oil, method of harvesting and production.

In some cases processed products are further described, even though briefly in some cases, as under hydrogenated castor oil. However the treatment in general is more than adequate.

Common and botancial names, even unusual names as that of "groundnut" in conjunction with peanut oil, gives an idea of the broad scope and knowledge exhibited by the book and author, respectively.

There is an unusually up to date and thorough coverage of hydrogenated oils and fats. The chapter on methods gives good coverage and fulfills the author's intent. The chapter on the biochemical and nutritional aspects of fats is a good digest of present day knowledge.

Miller's chapter on the gensis of fats and oils in plants touches on a phase of modern that is "meager" in the words of the author. Some data on origins of fats in animals and bacteria gives a background for the present work. It is good to see a summary of the work on Clostridium Kluyveri by Barker and Stadtman, the absence of which would have been a true void in this chapter.

It is this reviewer's opinion that author Eckey has produced a book that will bring credit to him and his publishers. It is a large book and will probably have to be divided into two volumes on the next rewriting if it continues to grow. It appears to be well indexed. The type is easily read and no proofreaders errors were noticed.

The book is not overpriced in today's market. All interested in vegetable oils and fats—and who or what industry or science is not—will be glad to see this rewritten reference.—*M. G. deNavarre.*

CHEMICAL ANALYSIS OF FOOD AND FOOD PRODUCTS, by Morris Jacobs. 6 x 9 inches, illustrated and indexed. 902 pages. D. Van Nostrand Co., Inc., New York, 1951. Price $9.00.

The arrangement of material is in a good and practical sequence.

There are a number of excellent sections that can be of considerable value to the food trades. On pages 604 through 608, the section on flavors and related data, is unusually fine. The chapter on flavor measurement is timely.

Anyone reading about F.D.A. seizures of foods regularly finds reference to "filth and decomposition." The author goes into detail on this subject.

Those working in the food and related industries will welcome this new edition.—*M. G. de N.*

WHY DO PEOPLE BUY? William H. Whyte Jr., Gilbert Burck, Dero A. Saunders, John McDonald, Richard A. Smith and Edgar Smith. 5½x8 in., 270 pages, cloth covers McGraw Hill Book Co. 1953. Price $3.50.

The authors are editors of Fortune Magazine and each contributes one or more chapters on some significant aspect of selling which they term "the great unsolved problem of American business." An idea of the contents may be had from the following chapter headings: Selling in Today's Economy; Why Do People Buy?, Help Wanted-Sales; What's Wrong with Retail Salesmanship?; How Eddie and I Cleaned Up; Shopping After Dark; Who Pays List Price?; Strategy of the Seller; The Million Dollar Sale; The 99 Lives of Charlie Soames; The Language of Advertising; The Postman Rings for Sales; and Who'll Buck a Trend?

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NEWS and EVENTS

Hazel Bishop Sets $7,000,000 Ad Budget, Earns Record High

Record high net earnings and a $7,000,000 lipstick advertising budget for Hazel Bishop Inc. are reported by board chairman Raymond Spector.

The company's net earnings for the six months' period ending April 30, 1954 were $1,247,711.73 before taxes and $552,701.53 after taxes.

Promotional plans include sponsorship of three NBC-TV network shows and full-page, 1,000-line advertisements in 100 big-city newspapers for New Formula Lipstick, plus big-space advertising featuring two new summer shades, Light Red and Soft Pink.

Schimmel & Co. Organizes Associate Company in London

Schimmel & Co., Inc., New York, announces the formation of an associate company in London which has been set up in cooperation with Fredk. Boehm, Ltd., of London, for long years Schimmel agents for the United Kingdom.

The new company will be known as Schimmel Boehm, Ltd. and will offer in the United Kingdom all Schimmel specialties in addition to the Boehm products, manufactured in the company's new factory in Belvedere, Kent. The administrative offices will be located at 19 Bentinck Street, London W. 1 and sales activities will cover the United Kingdom as well as other areas where it may be advantageous to transact business in sterling.

The new company will be under the personal direction of J. A. Clark, who will be assisted by J. A. Faber. The plant operations will be headed by W. S. Bearman.

Gert Keller, president of Schimmel & Co., Inc., will serve on the board of directors of the British company and will personally supervise the coordination of the manufacturing and sales activities of the two companies.

Schimmel originated in Leipzig, but with the original factory now a state enterprise behind the Iron Curtain, the center of Schimmel operations has been shifted to the New York company

J. A. Clark; J. A. Faber

which has been independently owned and operated since before the war. Dr. K. T. Keller, former technical director of the parent house, joined the New York company a few years ago and is likewise taking an active part in the production program of the new company.

Dow Chemical Co. to Offer Employees Common Stock

The Dow Chemical Co. has authorized another employee stock purchase plan and set September 7 as the date on which it expects to offer common stock for sale to employees of the company, its subsidiaries and domestic associated companies.

The new plan will be the sixth since 1948 when the company first started selling common stock to its employees on an installment basis.

Mich. Chemical, Allied Industries Assn. Holds Ladies Day

The Chemical and Allied Industries Assn. of Michigan will hold its Ladies Day Outing on Tuesday, August 24, at the Pine Lake Country Club. Tee-off time is at 1:00 P.M., followed by cocktails at 6:00 P.M. and dinner and entertainment at 7:00 P.M. Prizes will be awarded to all golf participants.

S.C.C. Industry-University Seminar to Exchange Data

What is believed to be the first cooperative industry-university seminar on cosmetic science in the United States will be held by the Society of Cosmetic Chemists September 23 and 24 at the New York Academy of Sciences, it has been announced by Dr. Donald H. Powers, president of the society. Members of the research and teaching staffs of New York University, New York Medical College, Rensselaer Polytechnic Institute and Textile Research Institute will cooperate with chemists of the Atlas Powder Co., Hazelton Laboratories, and Rayette, Inc. in discussing animal and human testing of cosmetics, emulsions in theory and practice and hair structure in permanent waving.

The meetings, expected to be a continuing function of the Society are the outgrowth of a long-felt need for a basic cosmetic sciences discussion forum.

Gabriel Barnett, program chairman, reports that industrial exhibitors will present developments in radioactive tracers, spectrometers and other laboratory and plant equipment. Trips to five leading cosmetic manufacturing plants are scheduled.

The fee for the two-day meeting will be $15 for members and $25 for nonmembers. This will include luncheons for two days and cocktail hour and dinner on the first day, Thursday, September 23. Attendance will be limited by the New York Academy of Sciences facilities to 125 persons.

T.G.A. Relocates Its Headquarters

The Toilet Goods Assn. has moved to another building in New York's Rockefeller Center. The new address is Suite 2006, Americas Building, 1270 Avenue of the Americas, New York 20, N.Y.; telephone, COlumbus 5-5443.

Organization for Women in Toiletry Industry Formed

"Cosmetic Career Women", a newly formed organization to advance the interests of women in the toilet goods industry, will hold the first of a series of luncheon-meetings on September 28 in the Jade Room of the Waldorf-Astoria Hotel in New York City. S. L. Mayham, Executive Vice-President of The Toilet Goods Association, will be the guest speaker.

Plans for future meetings include speakers on new products, merchandising, packaging, advertising and promotion, and other subjects of interest and importance in the industry.

The management of the organization is in the hands of an executive committee composed of Kathryn R. Colton of Morningstar-Nicol, Inc.; Kathryn M. Fitzpatrick of the T.G.A.; P. M. Burrow of Oxzyn Co.; Clarice Mills Garland of Colgate-Palmolive Co.; and Annabelle R. Farrell of Emery Industries, Inc.

Membership in Cosmetic Career Women is limited to women who have occupied executive positions for at least five years and secretaries to top executives in the industry for the same length of time.

Colgate Expands Jersey City Research, Development Plant

The Colgate-Palmolive Co. is increasing the size of its research and development pilot plant in Jersey City, N. J., by 25 per cent. Two floors are being added to the four-story building, which was only recently completed.

U. of Oklahoma Sponsors 2nd Annual Cosmetology Institute

Florence E. Wall, cosmetic chemist and author, spoke on the "Science behind the Art of Cosmetology" and Joseph Paterno discussed "Hair Styling" at the 2nd Annual Cosmetology Institute for beauty shop operators, shop owners, school owners and instructors July 26-30 at The University of Oklahoma, Norman, Okla.

New St. Louis Drug, Chemical, Allied Trades Assn. Officers

The Drug, Chemical and Allied Trades Assn. of St. Louis has elected the following officers: H. A. Eckhardt, president; James J. Antle, 1st vice-president; Louis J. Kirchhoff, 2nd vice-president; Fred J. Lence, secretary and treasurer; and O. J. Cloughley, chairman of the board.

Elected to serve on the board of directors are Edward H. Baltzer, John H. Klamer and Lee F. Donley.

The association, established in 1931, has currently a membership of 175.

Above, dais guests at the recent drug and cosmetics industry dinner honoring Harry S. Sylk, of Sun Ray Drug Co., on behalf of the Joint Defense Appeal, held at the Hotel Pierre. Seated, left to right, are Morris L. Levinson, of Five Day Labs.; Mr. Sylk; Raymond Spector, of Hazel Bishop, Inc.; and speakers Sylvester L. Weaver, Jr., NBC president, and the Hon. J. Waties Waring, Federal District Court Judge, S.C. (retired). Standing, left to right, are Samuel Rubin, of Faberge, Inc.; Leo Bertisch, of United Cigar-Whelan Corp.; R. Epstein, National Director of the Anti-Defamation League, who also addressed the meeting; Irving Feldman, of Zelart Drug Co.; and Joseph Rosenwald, of Affiliated Drug Stores. The Joint Defense Appeal is sponsored by The American Jewish Committee and the Anti-Defamation League of B'nai B'rith.

Leeben Chemical Co. Follows Simultaneous Vacation Plan

Plant, office and laboratory of the Leeben Chemical Co., Inc. and Interstate Color Co., a division, New York City, were closed from July 17 to 25 to permit simultaneous vacations of the staff.

Roure-Dupont's Louis Amic, Jac. d'Aigremont Cross Ocean

Louis Amic, managing director of Roure-Bertrand Fils & Justin Dupont of France, and president of Roure-Dupont, Inc. of New York, paid one of his flying business visits to New York last month. Meanwhile, Jacques d'Aigremont, executive vice-president of Roure-Dupont, Inc., after an extensive business trip through the U.S.A. and Mexico, left for Europe on July 16 with his bride, the Countess d'Aigremont, on a business-vacation trip, during which he plans to visit France, Italy and other sources for the purchase of raw materials.

Felton Chemical Co. Closes Plant for 2-Week Vacation

Felton Chemical Co., Inc., observed its annual vacation shutdown July 17 through August 1.

"World of Flavor" D&O Exhibit at Food Technologists Meeting

"A World of Flavor" was the theme of the Dodge & Olcott booth during the recent Institute of Food Technologists convention held at the Hotel Biltmore, Los Angeles, Cal. The exhibit featured a composite view of the company's over-all flavor operations.

Hudnut's Canadian Subsidiary Considering New Toronto Site

The William R. Warner & Co., Ltd., Canadian subsidiary of Warner-Hudnut, Inc., is considering a site for a new Toronto plant.

The new plant would have a minimum of 100,000 square feet of floor space to accomodate the company's 165 cosmetic and pharmaceutical workers. The present plant on King Street West, Toronto, has 67,000 square feet.

Houbigant Sales Corp. Concludes Annual Sales Meet

Houbigant Sales Corp. recently concluded its annual sales meeting at Mont Gabriel Club in Mont Gabriel, P.Q. Canada, with executives and sales representatives from the U.S. and Canada attending, including Jacques Mahoha, executive vice president, who has just returned from abroad.

The meetings were conducted by H. T. "Bert" Georgi, sales manager and Pierre Harang, vice president. Al Welzel, promotion manager and Robert Spencer, advertising manager, contributed in the discussions.

Gerard Bungener, vice president, held special sessions for the Canadian group.

Orbis Products Corp. Moves Chicago Office

Orbis Products Corp., essential oils and flavorings, has moved its Chicago offices to 5719 North Central Ave., Chicago 30, Ill.; telephone SPring 7-4757.

SELECTED BOOKLIST

for Perfume, Cosmetic, Soap and Flavor Chemists

1. THE HANDBOOK OF SOLVENTS.

By Leopold Scheflan and Morris Jacobs. The most useful reference work on solvents available today. The properties, uses, action and technology of solvents are covered in this comprehensive handbook. Two major sections: 1. Covers theoretical aspects and practical attributes of solvents such as solvent action, solvent power, evaporation and evaporation rates and limits of inflammability. Discusses in detail solvent recovery, stresses safe practices; 2. The physical constants of over 2,700 liquid compounds are tabulated. Arrangement such that you can compare, at a glance, the so-called literature constants with the commercial constants of each solvent. 728 pp., 7 x 10, 17 illus. $10.25 postpaid.

2. SOAPS AND DETERGENTS.

By E. G. Thomssen, Ph.D. and J. W. McCutcheon, M.A., D.C.I.C. A volume for the practical soap maker. Synthetic detergents thoroughly discussed. Tabulates 250 surface active agents, their classification, trade names, manufacturers and application in the soap industry. Covers continuous soap making processes, soap perfuming and coloring, equipment, processes and methods. Up-to-date, authoritative. 511 pp., 66 illus. $9.25 postpaid.

3. THE FUNDAMENTALS OF DETERGENCY.

By William W. Niven, Jr., Research Chemist & Consultant, Midwest Research Institute. A thorough-going treatment of the theory and practical applications of detergency. Discusses: 1. The effects of composition, concentration, temperature and added electrolytes on the nature and properties of aqueous detergent solutions; 2. The fundamental actions which constitute detergency and the role of detergents in aiding these actions; 3. The means of utilizing the various fundamental detergent actions in laundering (a typical application). 260 pp., illustrated. $6.75 postpaid.

4. MANUAL FOR THE ESSENCE INDUSTRY.

By Erich Walter. Comprises modern methods with formulas for making all kinds of essences for liquors and alcoholic drinks, fruit juices and jams, mineral waters, essences of fruits and other vegetable raw materials, essences for confectionery and pastry. Describes raw materials and laboratory practice. Discusses taste and the transfer of flavor to foods and beverages. A standard work for many years. Contains 427 pages, 37 illustrations. $8.25 postpaid.

5. PERFUMERY SYNTHETICS AND ISOLATES.

By Paul Z. Bedoukian, Ph.D. This carefully compiled volume supplies a genuinely felt want for authoritative data on perfumery synthetics. The work contains the history, chemistry, physical and chemical properties, manufacture, uses, and other pertinent data of the principal perfumery compounds; and covers the important perfumery synthetics. A complete index adds to the value of this useful book. 488 pages, $8.75 postpaid.

6. FORMULARY OF PERFUMERY.

By R. M. Gattefosse. Translated from the French. Contains typical examples of tested formulations and methods of preparation of perfumes and cosmetics. Part I covers synthetic perfumes and 100% compositions. A table of floral families is included with numerous empirical formulas. Part II covers alcoholic perfumes, toilet waters, extracts and various types of perfumes concluding with a formulary of cosmetology with adequate discussion of and formulas for beauty creams, various cosmetic specialties, rouges, lotions, dentifrices, hair products and nail preparations. 252 pages, 6x9 in., cloth covers. $4.25 postpaid.

7. PERFUMES, COSMETICS AND SOAPS.

By William A. Poucher. *Volume* II—*Production, Manufacture and Application of Perfumes of All Types.* Covers in full the methods of production of perfumes, their chemistry, odor analysis, selection for various purposes, and compounding from various materials. Complete monographs explain all the floral perfumes, giving the botanical varieties, the odor classification, the chemical composition, practical suggestions for compounding, and the best ingredients. Additional chapters give many new formulas for fancy perfumes and toilet waters. 426 pp. $10.25 postpaid.

8. MODERN COSMETICOLOGY.

By Ralph G. Harry. Partial contents: Emulsions, Cleansing Creams, Milks and Lotions, Acid Creams, Face Packs and Masks, Mud Creams, Vanishing Creams, Powder Creams, Lubricating Creams, Astringents and Skin Tonics. Lipstick, Make-up. Face Powders. Sunburn and Suntan Preparations. Deodorants. Depilatories. Antioxidants. Bath Preparations. Bath Oils and Emulsions. Foam Baths, Hand Creams and Lotions, Dental Preparations. Mouthwashes. Shaving Preparations. Hair Tonics and Lotions. Hair Creams and Fixatives. Permanent Waving Solutions. Hair Setting Lotions and Hair Lacquers. Hair Shampoos and Soapless Detergents. Manicure Preparations. Eye Lotions. Baby Preparations. Foot Preparations. Insect-Bite Preparations. Humectants. Acne Preparations. Coloring of Cosmetic and Toilet Preparations. 514 pp. $12.25 postpaid.

9. THE ESSENTIAL OILS.

By Ernest Guenther, Ph.D. This monumental six-volume work is comprehensive, authentic. VOL. I. covers: Origin and Development of Essential Oil Industry, Chemistry and Function of Essential Oils in Plant Life, Products of Essential Oils. 448 pp., $7.75 postpaid . . . VOL. II gives detailed data on several hundred of the more important constituents of essential oils. 852 pp. $12.25 postpaid . . . VOL. III describes the oils of plant families Rutaceae (with special emphasis on citrus oils) and Labiate. 777 pp., $12.25 postpaid . . . VOL. IV covers the individual oils in six plant families not covered in Vol. III. 752 pp., $12.25 postpaid . . . VOL. V is of special importance to the flavor chemist. 507 pp., $12.25 postpaid . . . VOL. VI, the final volume, is of interest to the pharmaceutical, flavor, and perfume industries. Features wintergreen, sweet birch, valerian, mustard, onion, hops, etc. Also deals with pine oils and turpentine. Includes table showing the taxonomic classification of all the essential oils described in all six volumes. 481 pp., $12.25 postpaid.

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van Ameringen-Haebler Marks Anniversary with Outing

van Ameringen-Haebler celebrated its quarter century anniversary under the present corporate name at its annual Spring outing in Middletown, N.J.—though the history of the organization extends back for more than 45 years.

A. L. van Ameringen, president of the corporation, briefly interrupted a European business trip to attend the company-wide celebration. At the dinner which climaxed the day's activities, both Mr. van Ameringen and Dr. Haebler were presented with scale models in stainless steel of the newest high vacuum stills which were recently put in operation in the new Union Beach plant. These models were presented as a gift from the employees by C. O. Tanc, vice-president in charge of production. Honors were bestowed on the following 19 officers and employees of the company who have served van Ameringen-Haebler, Inc. for 25 years or more: Charles A. Buckie, Ernest Clift, Ida Cohen, A. J. Dillinger, Sidney Friend, Fannie Goldstein, W. T. Haebler, Marvin Hawk, Frank Holzschneider, Thomas Kilpatrick, Elsie M. Kramer, John Merritt, Viola Roen, Martinious Schippers, Madeline Seaton, John Shanahan, Charles Tanc, A. L. Van Ameringen, John F. Wagner.

A mammoth anniversary cake representing in decor all of the separate activities of the company was cut ceremoniously at the evening dinner by Mr. van Ameringen and Dr. Haebler.

H. R. Shepherd Predicts Dramatic Aerosol Progress

Progress in aerosol packaging during the coming years promises to be as dramatic and as significant as the great forward strides of the past few years, according to H. R. Shepherd, vice-president in charge of research at Connecticut Chemical Research Corp. of Bridgeport, Conn., in a talk which he made to a July CIBS luncheon in New York.

In the brief period from 1951 to 1953, aerosol production had more than tripled; in a single year, hair lacquer production doubled; and in two years, shaving lather in aerosol form increased almost ninefold. Nevertheless, Mr. Shepherd predicted, the surface has not yet been scratched; the period of greatest growth is still being approached.

Mr. Shepherd briefly outlined some of the problems facing the aerosol industry; the nature of research that is now going on that will make new and improved cosmetics available in the pressure-can form; the studies on glass bottles, new and cheaper propellents, pharmaceutical and ethical product uses, and he mentioned such developments as the metered valve, which will enable the user to eject a consistent and controlled quantity of a product from the package.

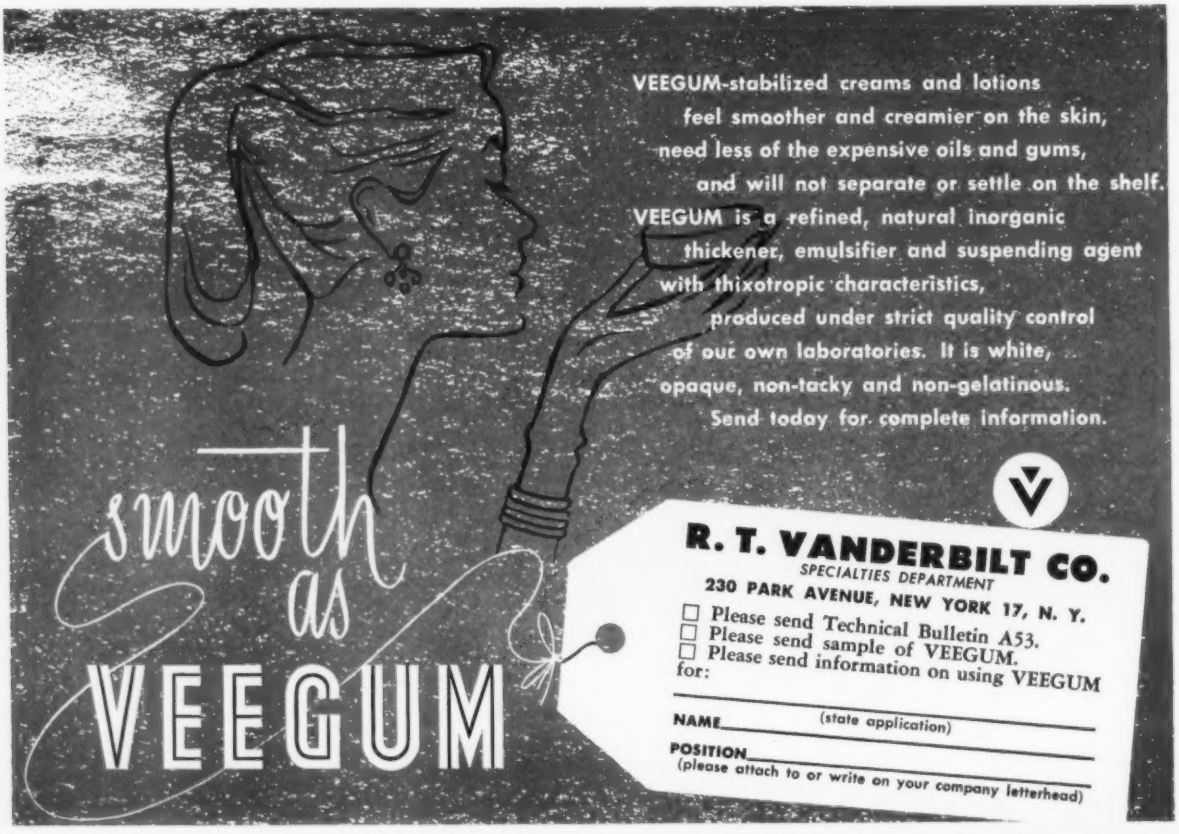
There was a lively discussion period following Mr. Shepherd's talk, and he answered questions on a variety of topics, ranging from the availability of propellents to the use of the nylon bottle and the formulation of noncorrosive shampoos.

New York BIMS Hold Member-Guest Golf Tournament

The New York BIMS held a member-guest golf tournament on July 20 at the Winged Foot Golf Club, Mamaroneck, N.Y.

Wm. J. Stange Co. Booklet Observes 50th Anniversary

The Wm. J. Stange Co. commemorates its 50th anniversary with a booklet describing its growth over the years, its present organization and operations, and the seasons, certified food colors, and antioxidants it offers to food processors.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Above, Hazel Bishop's new 40,000 square feet, air-conditioned warehouse and shipping depot in Paramus, N.J. It provides ample room for additional building extensions and has parking space for 350 cars. Additional warehousing and shipping points are being planned for Chicago and Los Angeles. Manufacturing will continue at Port Jervis, N.Y., and Milwaukee.

Flower Harvest in Grasse of Rose and Orange

Atmospheric conditions of last May were not favorable for the culture of rose and orange. May was cold and stormy for the first two weeks and all vegetation suffered and throughout the rose plantations frost caused damage. Buds which were not affected by the cold were otherwise damaged; so the production will be deficient.

In certain plantations gathering of flowers for a day scarcely reached that of last year; and as a result the volume of flowers for the factories was considerably reduced. After the first estimates that production will not reach 400,000 kilogrammes against 712,000 kilogrammes in 1953 producers asked that the price of the flowers be fixed at 250 francs per kilo. This price was accepted in principle by the Grassois industrialists but with a moveable level which will bring the price back to 200 francs per kilogramme in case the harvest increases from 400,000 to 500,000 kilogrammes which seems improbable.

The same changeable scale has been retained for orange flowers. The price was fixed at 145 francs per kilo for a yield of 550,000 kilos which will be changed to 155 francs if the yield should be below 525,000 kilos.

In the cooperatives an important stock of neroli essence from 1953 still exists. Manufacturers have agreed to reabsorb this to the extent of 275,000 kilos.

Prices definitely fixed are frs 145 per kilo for orange flowers and frs 220 per kilo for rose.

Boston BIMS Hold Golf Party, Dinner

BIMS of Boston will hold a golfing party and dinner on August 19 at the Dedham Country and Polo Club.

Ralph L. Evans, Jr., Not Sr., Wins Second Prize in Golf

Dr. Ralph L. Evans, president of Evans Research and Development Corp., clarifies that it was his son, Ralph L. Evans, Jr., who won the Second Prize in the British Golf Tournament of the S.C.C., and not he, as was erroneously stated in last month's issue.

Dodge & Olcott Adds Four Chemists to Technical Staff

Dodge & Olcott, Inc. has added four new chemists to its technical staff.

William Ammon, former supervisor of quality control for the Stange Chicago plant, has joined the staff of the new D&O dry soluble seasonings department, and will work in the control laboratories and plant in Hawthorne, N.J.

Jacob Glueck, formerly with Felton Chemical Co., has joined the D&O flavor department laboratories in New York. Fritz Schubert and Ray P. Williams have joined the technical staff of the D&O perfume and product development laboratories in New York City. Mr. Schubert, formerly laboratory manager for Renee Forster and

Fritz Schubert; Ray P. Williams

Jacob Glueck; William Ammon

Above, at the Heyden Chemical Corp.'s recent annual sales conference at the company's New York office, 342 Madison Ave. Seated, left to right, are: F. A. Degener, chemical sales manager; Dr. Herman Sokol, vice president, research; Arthur Broadman, vice president, engineering and purchasing; John P. Remensnyder, chairman of the board; Simon Askin, president; K. M. Irey, assistant vice president, production; Dr. F. T. Peters, manager market development; C. J. Meisinger, general traffic manager. Standing, left to right, are: S. Neader, sales representative, Chicago; E. Vogel, sales representative, Chicago; R. Kulow, sales representative, New York; J. T. Kratina, sales representative, New York; Harold Von Oehsen, branch sales manager, New York; G. Lee, vice president, McArther Chemicals, Ltd.; E. Barkley, technical sales representative; T. Risch, branch sales manager, Cincinnati; I. Loxley, branch sales manager, Providence; A. G. Stern, branch sales manager, San Francisco; W. Spreen, Mid-Western district manager; R. Aude, plant manager, Fords, N. J.; Dr. T. R. Aalto, manager technical sales; R. Knowles, sales representative, Detroit; J. Claypoole, branch sales manager, Philadelphia; W. Kraft, group leader, applications group; J. Hutchins, technical sales representative; Ely Balgley, supervisor, new product development; W. Leakyne, sales representative, Philadelphia; J. Doroskin, branch sales manager, Chicago.

Naugatuck Aromatics, is an industry veteran of 30 years. Ray Williams has spent the past eight years as quality control technician for the Du Pont plant in New Brunswick, N.J.

Mich. Chemical, Allied Industries Assn. 3rd Golf Match

The Chemical & Allied Industries Assn. of Michigan held its third 1954 golf outing on July 27 at the Meadowbrook Country Club.

Among Our Friends

NORMAN L. SWARTOUT has resigned as president of Angelique & Co., Wilton, Conn., and has been succeeded in that office by CHARLES N. GRANVILLE. Mr. Swartout is secretary-treasurer of Celeste Products Corp. and the selling organization Celeste Sales Corp.

DR. WILLIAM A. HOFFMAN, president of William A. Hoffman, Inc., will leave August 25 for a 15,000-mile business trip to France, Austria, West Germany and England. He expects to be back in New York at the end of September.

BYRON J. STOLAROFF, vice-president of Natone Co., Los Angeles, has been made general sales and promotion manager for all Martha Lorraine products and imports, in addition to his other duties. GORDON HOLLEMAN, formerly in charge of sales is now sales representative in the Southern California territory.

DR. HERBERT HEINRICH, director of research at Kolmar Labs., has left on an eight weeks' trip to the Continent, where he will visit Kolmar's plant in Paris and the firm's sub-plant in Germany.

THOMAS M. BIALLO, manager of the New York office of Camilli, Albert & LaLoue, Inc., and his wife announce the birth of a daughter, Suzanne Andree.

MARK WEISBERG, formerly in charge of the Alrose Chemical Co. Div. of Geigy Chemical Corp., has retired. Mr. Weisberg founded Alrose in 1935.

CHARLES T. SILLOWAY, vice-president of Warner-Hudnut, Inc., has been named president of Warner-Chilcott Labs., the company's pharmaceutical division. Its operations account for more than half of the company's annual sales volume.

WILLIAM A. PETERSON of Colgate-Palmolive Co. has been

William A. Peterson

elected vice-president of the American Oil Chemists' Society. He is head of the standards and plant auditing division of the department of research and development, Colgate-Palmolive Co.

MRS. CLARA OGILVIE MacINNIS and MRS. MABEL OGILVIE CARTER have returned from a three weeks' vacation and business trip to the San Francisco area, where they visited Ogilvie Sisters accounts and renewed old acquaintances.

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WILLIAM T. FRENCH has been appointed assistant sales manager at The Wildroot Co., and CHARLES DENTINGER has been named media director, a new post in the advertising department. H. ARTHUR CHAMBERLIN has been made manager of professional sales, ROY WEISENBORN has been named assistant export manager, and MERLE CARLSON has been appointed manager of retail sales.

RICHARD P. REAVEY has been appointed research chemist at the research and development laboratory of John H. Breck, Inc. in Springfield, Mass.

Richard P. Reavey

Previously he had been research chemist at E. I. Du Pont de Nemours & Co.

ANDREW J. LISKY has been appointed perfumer in the Research and Development Dept. of the Colgate-Palmolive Co.

GEORGE D. CREELMAN, formerly research coordinator the M. A. Hanna Co., has been named Technical Service Director at Bjorksten Research Labs., Inc.

A. J. FEIT, formerly with the Fine Chemicals Div. of E. I. du Pont, has been appointed sales representative for Knapp Products, Inc. in the Mid-West territory with offices at 1713 South Halsted St., Chicago 8, Ill.

MRS. TESS TINKER of Shulton's New York sales office is the new president of Teaneck-Bergenfield Zonta Club, for which she was the representative-delegate at last month's 32nd National Convention of Zonta Clubs in Cincinnati.

H. R. SHEPHERD, vice-president in charge of research of Connecticut Chemical Research Corp., is on a business trip to England and France, where

Mr. and Mrs. Herman R. Shepherd as they board a plane in New York enroute to London.

he will aid in the establishment of an affiliated aerosol company servicing England and the continent. A. O. Samuels, president, joined Mr. Shepherd in England later. In addition to meeting with Connecticut Chemical's associates in England, and with chemists and executives of British cosmetic houses, Mr. Shepherd will speak at a meeting being arranged especially for him by the British Society of Cosmetic Chemists.

Plymouth Brand **STEARATES**

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PLYMOUTH SPECIAL "A" ZINC STEARATE U. S. P.

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DR. MANNO FREDERICK NELSON, Jr., a chemist in the Colgate-

Dr. Manno Frederick Nelson, Jr.

Palmolive Co. Dept. of Research and Development, has been promoted to Group Leader. He will be in charge of one of Colgate's nucleonic laboratories.

JAMES McGROTTY has been appointed general manager of Seeney Products Co., Inc., New Rochelle, N.Y. The company specializes in the manufacture of lamb's wool accessories.

DR. HENRY GOLDSCHMIEDT, founder and executive vice-president of the American Society of European Chemists and Pharmacists (A.S.E.C.) has resigned. He is chief chemist with Mem Co., Inc., New York City.

BERTRAM REIBEL has been appointed vice-president and Creative Director of the Hudnut Sales Co. He was formerly Director of Merchandising at Revlon Products Corp.

MISS GEORGETTE M. MICHEL of Michel Cosmetics, Inc. has returned from a brief business visit to Mexico and Cuba, where she discussed the introduction of new Michel items in these markets.

MELVIN GOLDSTEIN, research assistant to DR. VICTOR G. FOURMAN in the laboratories of Syntomatic Corp., has been awarded a National Research Foundation Fellowship. Mr. Goldstein majored in chemistry at Columbia University, where he received his B.S. degree Summa Cum Laude. He will enter the Graduate School of Yale University, where he will work for his Doctorate in organic chemistry.

HENRY H. EICKMEYER, of the Schimmel & Co., Inc. sales staff, left by Pan American Stratocruiser on July 4 to spend the summer in Europe where

Henry H. Eickmeyer

he will visit England and the continent. He will be back in late summer.

SIMON ASKIN, president of the Heyden Chemical Corp., has been elected president of the New York Chapter of the Armed Forces Chemical Assn.

JOHN E. PENDERGAST has been promoted from district drug sales supervisor to national drug sales director of Park & Tilford, manufacturer of Tintex dyes, Park & Tilford toiletries and Winx eye preparations.

Dr. Joseph Stummer

Dr. Joseph Stummer, one of the foremost consulting chemists in the cosmetic industry, died from a heart attack at his home in Glendale, N. Y., July 12. He had been in ill health for about five weeks.

Dr. Stummer was born and educated in Wurzburg, Germany August 10, 1889. In 1909 he came to America where he continued his studies in Rutgers University College of Pharmacy from which he took a degree. He continued his studies in chemistry in Cooper Union and in 1934 earned the degree of Ph. D. from Columbia University.

In 1923 he opened his own laboratory as a consulting chemist, a vocation he continued for almost 31 years, serving some of the foremost companies in the industry. He visited Heidelberg University in 1934 and again in 1939 when he was awarded an honorary degree from that famous institution of learning. Dr. Stummer was married February 2, 1922. He is survived by his wife Margaret and five children: three daughters and two sons, and also seven grandsons.

As a chemist Dr. Stummer was recognised for his deep scholarship and careful work in the laboratory and for his unfailing friendliness at all times to a wide circle of friends who had the privilege of knowing him personally.

Joseph V. Gartlan

Joseph V. Gartlan, of the New York sales department of Morrison Bergmann Corp., suppliers of metals and plastic to the cosmetic industry, passed away July 28. He was in his mid-seventies.

He had been associated with various firms in or closely connected with the cosmetics industry since 1895, including Pinaud, Theodore Foster & Bros., and Majestic Metal Specialties.

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Market Report

Trade Spotty; Flavor Oils Steady

SOME essential oils that had developed an easier trend a month ago suffered further losses, but there were some exceedingly strong spots in the market, including Formosan citronella, patchouli, lemongrass, petitgrain and bergamot.

Among the aromatic chemicals, citral remained in a generally firm position and articles such as heliotropine and safrol continued to lean toward the firm side with some trade factors anticipating a further rise in prices.

Trade Spotty

Trade as a whole proved rather spotty. The movement of various oils used in the beverage field was fairly brisk. However, many buyers covered their anticipated requirements during May and June, and subsequently new business was somewhat limited. Summer vacations had a dampening effect upon the call for those oils going into soap and pharmaceuticals but manufacturers are looking forward to a decided upswing in sales in the Fall.

The food trade continued to take fair quantities of oils and closely related items for its general line of summer goods. Several of the seed and spice oils moved lower in price including caraway, coriander, nutmeg, and ginger.

Citrus oils were in an entirely different position than they were this time a year ago. Major suppliers of Californian lemon oil were making deliveries promptly whereas this time last year the market was in an exceedingly tight supply position. Current stocks are not sufficiently large to create any real selling pressure in the market but nevertheless it was explained that the supply was sufficient to take care of all demands. A tightening in orange oil was reported in some directions particularly with respect to the Californian oil.

Mint oils, namely spearmint and peppermint, lost some ground toward the latter part of last month, although some observers believed that the lowering of spot prices in some quarters was a move the depress the market in the country where distillation of new crops should soon be underway. Peppermint oil of good quality was not at all plentiful, it was pointed out, because high test material had been in light supply for many months past. Consumption of spearmint has been running somewhat below last year, according to reports, but its use is still fairly broad and it is not expected that a carryover from last year's production will prove any great problem to dealers in the country. Cedarwood oil was a strong item in the group of domestic oils. The supply situation has become increasingly critical with some buyers finding it necessary to turn to oil from Africa to satisfy their requirements.

Lemongrass Strong

After settling somewhat from recent high price levels, the situation in lemongrass developed renewed strength due in some measure to the upset conditions in Guatemala. Prices for sandalwood oil moved higher by reason of a hardening trend in replacement costs. Spot prices for ocotea cymbarum were virtually nominal. There was so little oil in dealer hands that there appeared to be a general tendency to reserve these supplies for the regular consumer trade. Incoming shipments from the origin have been limited.

Interest in the floral oils was largely centered upon new crops and future costs. The outlook in neroli is regarded as firm although the price paid by distillers for orange flowers in France was reported as only about ten francs per kilo above last year's price. Fluctuations in geranium have been irregular and within a narrow range. Prices paid for the new rose crop in Grasse were reported at about ten per cent above last year.

Glycerin stocks are expected to fall below the 60 million pound mark. Latest official figures showed that stocks at the end of May declined to 60,067,000 pounds from 64,001,000 pounds on hand at the end of April. Output in May dropped to 16,500,000 pounds from 18,221,000 pounds in April and with the vacation period in full swing, a further drop in output is likely because of a seasonal curtailment in operations. Soap plants in most cases either close down or curtail production schedules during July for repairs and vacations. Very little glycerin has been imported into the United States thus far this year. Most of the lots available for export from Argentina have gone to Europe whereas normally Argentina is one of this country's main sources of foreign crude.

Menthol Prices Up

In keeping with the hardening trend in Brazilian menthol, prices for racemic material moved up for the first time in many months. The article advanced 50 cents per pound. The natural product from Brazil has been steadily edging upward in price because of a small production this year which in turn has resulted in limited offerings from the primary center.

Synthetic laevo menthol derived from citronella oil also scored gains, not only in keeping with the hardening trend in natural menthol prices, but also because of mounting raw material costs. Many of the gums were featured by a stronger tone.

After displaying some irregularity in the early part of the period under review, gum arabic turned firmer. Earlier in the year the local market was adversely affected by reasonably good stocks here. Benzoin was in a tight supply and karaya developed a firmer trend on reports on an improved demand.

Although gum rosin prices lost further ground over the past month, the market showed greater resistance toward additional losses as the result of heavy demands for the account of exporters as well as domestic consumers.

PRICES IN THE NEW YORK MARKET

ESSENTIAL OILS

Prices per lb. unless otherwise listed.

Almond Bit, FPA per lb.	3.25@	3.75
Sweet True	.55@	.90
Amyris	1.50@	1.75
Angelica Root	70.00@	110.00
Angelica Seed	56.00@	62.00
Anise, U.S.P.	3.50@	Nom'l
Apricot Kernel	.45@	.50
Bay	1.50@	2.00
Bergamot	11.00@	14.00
Artificial	3.25@	8.75
Birchtar, crude	1.80@	2.10
Birchtar, rectified	2.25@	2.75
Bois de Rose	4.10@	4.75
Cajeput—		
U.S.P.	2.55@	3.15
Tech.	2.10@	2.30
Calamus	15.00@	20.00
Camphor "White"	.35@	.45
Cananga, native	8.00@	8.90
Rectified	12.50@	13.25
Caraway	2.65@	3.00
Cardamon	40.00@	48.00
Cascarilla	35.00@	50.00
Cassia, rectified, U.S.P.	8.00@	Nom'l
Cedar leaf, U.S.P.	2.45@	3.00
Cedar Wood	1.00@	1.40
Celery	15.25@	18.00
Chamomile Hungarian	190.00@	280.00
Cinnamon—		
Bark	28.50@	40.00
Leaf	1.35@	3.00
Citronella, Ceylon	.90@	1.50
Java	1.10@	1.30
Java type	1.10@	1.50
Cloves, from buds	3.85@	4.50
Leaf	1.75@	2.10
Copaiba	1.90@	2.50
Coriander	15.75@	18.25
Croton	2.75@	3.50
Cumin	4.25@	5.25
Dill—		
Weed	4.35@	5.00
Seed, Indian	2.90@	4.00
Erigeron	5.50@	6.85
Eucalyptus—		
80-85%	.80@	1.25
70-75%	.65@	.95
Fennel, Sweet	2.40@	2.85
Garlic (oz.)	7.00@	9.00
Grapefruit	2.55@	3.25
Geranium, Rose Algerian	9.50@	11.75
Bourbon	10.65@	12.50
Turkish	7.50@	9.50
Ginger	10.00@	13.25
Guaiac (Wood)	1.50@	1.90
Hemlock	2.25@	2.85
Jasmin (absolute)	225.00@	400.00
Juniper Berry	2.90@	3.75
Laurel leaf	9.85@	12.60
Lavandin	2.15@	3.00
Lavender, French—		
40-42% ester	5.15@	6.75
30-32% ester	2.60@	4.15
Spike	1.55@	2.00
Lemon, Calif.	6.35@	6.60
Italian	6.00@	7.80
Lemongrass, native	1.40@	2.00
Limes, distilled	5.35@	7.00
Expressed	7.75@	9.50
Linaloe wood	3.80@	4.25
Lovage (oz.)	6.25@	6.90
Mace	3.10@	4.00
Marjoram	3.00@	4.75
Neroli—		
Haitian	75.00@	100.00
French	200.00@	250.00
Nutmeg—		
East Indian	2.90@	3.50
West Indian	2.65@	3.65
Ocotea Cymbarum	1.00@	Nom'l
Olibanum	6.00@	8.00
Opopanax	30.00@	38.00
Orange, Florida	.65@	1.00
Italian	3.90@	6.00
Calif., exp.	.85@	1.25
Distilled	.75@	.80
Origanum	1.95@	2.25
Orris Root, concrete (oz.)	8.75@	9.50
Concrete, extra	14.00@	15.75
Patchouli	8.25@	10.00
Pennyroyal, European	1.75@	2.25
Peppermint natural	5.70@	6.10
Redistilled	6.15@	6.50
Petitgrain	3.25@	4.00
Pimento, Berry	4.10@	4.95
Leaf	2.45@	3.00
Pinus Sylvestris	3.00@	3.65
Pumilio	3.85@	4.90
Rose, Bulgaria (oz.)	50.00@	75.00
Synthetic, lb.	30.00@	35.00
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Sage—		
Spanish	.95@	1.25
Dalmatian	5.90@	7.00
Sandalwood, N. F.	10.80@	11.25
Sassafras—		
Artificial	.90@	1.25
Snake root	30.00@	32.00
Spearmint	5.15@	6.10
Spruce	2.50@	2.80
Sweet birch Southern	2.65@	3.40
Northern	4.35@	8.00
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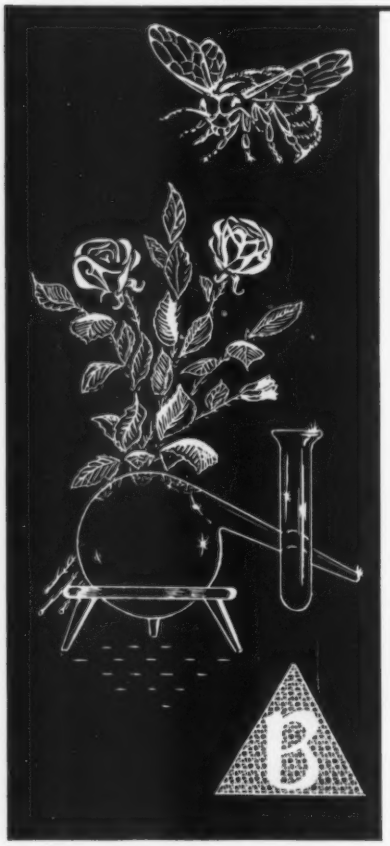
Thyme, red	1.80@	2.50
White	2.15@	3.00
Valerian, extra	82.50@	90.00
Vetivert—		



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Wormseed	6.80@	7.50
Wormwood	5.45@	6.50
Ylang Ylang, Bourbon	17.00@	32.50
Haitian	12.85@	Nom'l

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Lime, ex.	80.00@	90.00
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Spearmint	10.25@	14.60

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C 16 (Strawberry so-called)	5.85@	6.20
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Amyl Formate	1.40@	1.65
Amyl Phenylacetate	4.00@	4.35
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Amyl Salicylate	1.00@	1.25
Amyl Valerinate	1.95@	2.40
Anethol	1.20@	1.35
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Benzyl Benzoate	.75@	.95
Benzyl Butyrate	1.75@	2.00
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Benzyl Propionate	1.60@	2.10
Benzyl Salicylate	1.70@	2.25
Benzylidene Acetone	1.85@	2.50
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Ethyl Formate	.70@	.80
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Ethyl Propionate	.90@	1.00
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Ethyl Vanillin	6.75@	7.30
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Standard	.75@	1.90
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Japanese	11.00@	12.25
Synthetic, racemic	5.40@	5.45
Laevo	7.30@	7.35
Methyl Anthranilate	2.60@	2.80
Methyl Anthranilate extra	2.75@	3.10
Methyl Benzoate	.60@	1.00
Methyl Cinnamate	1.65@	2.00
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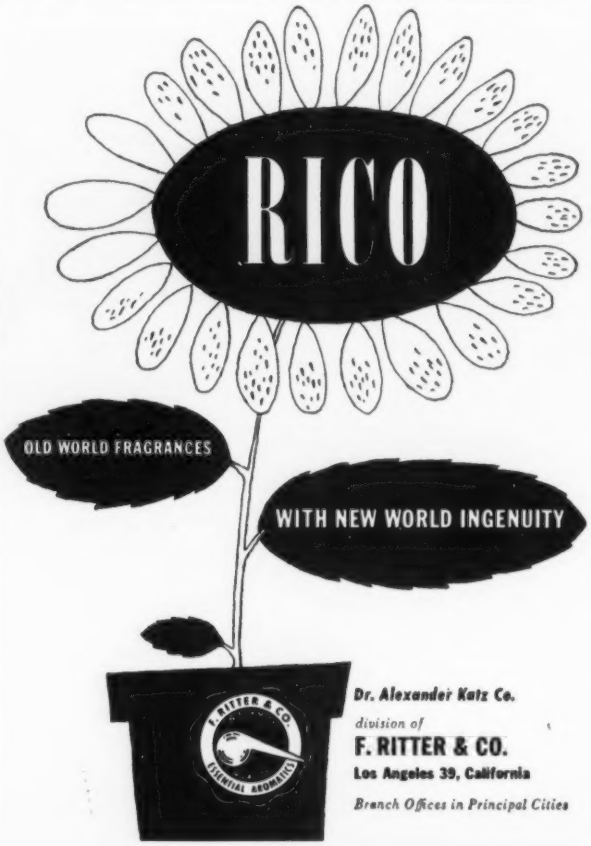

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Bourbon	10.00@	10.75
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Angostura	1.65@	1.80

SUNDRIES AND DRUGS

Acetone	.10@	.12
Ambergris, ounce	8.00@	16.50
Balsam, Copaiba	.90@	1.00
Canada fir, gal.	33.00@	35.00
Peru	1.38@	1.60
Beeswax, bleached, pure U.S.P.	.72@	.77
Yellow, refined	.60@	.65
Bismuth, subnitrate	2.65@	
Borax, crystals, carlot ton	67.25@	91.75
Boric Acid pwd. U.S.P., ton	129.25@	153.75
Caffeine, anhydrous	3.10@	3.15
Calcium, Phosphate	.07¾@	.08¼
Phosphate, tri-basic	.07⅝@	.08
Camphor, pwd., domestic	.54@	.56
Castoreum, nat., cans	5.25@	20.00
Cetyl, Alcohol, extra	.80@	1.15
Chalk, precip. bags, clts ..	.02⅞@	.03
Cherry Laurel Water, jug, gal.	1.25@	Nom'l
Citric Acid Anhydrous ...	.28¾@	31¼
Civet, ounce	9.00@	13.85
Cocoa butter	1.12@	1.14
Cyclohexanol (Hexalin) .	.34½@	.35
Fuller's Earth Mines on .	27.00@	30.00
Glycerin, C. P.	.29½@	.30
Soap Lye, crude	.21@	.22
Gum Arabic, white pwd. .	.40@	.45
Amber	.19½@	.20
Gum Benzoin, Siam	3.75@	3.85
Sumatra	.38@	.42
Gum Galbanum	1.25@	1.50
Gum karaya, pwd.	.25@	.38
Gum Myrrh	.36@	.40
Henna, pwd.	.25@	.26
Kaolin	.05@	.07
Labdanum	1.00@	1.85
Lanolin, cosmetic	.33@	.35
Anhydrous	.30@	.32
Magnesium, carbonate ...	.11¼@	.14
Stearate	.38@	.43
Musk, ounce	65.00@	Nom'l
Olibanum, tears	.26@	.28
Siftings	.16@	.18
Orange Flower Water, gal.	1.75@	2.25
Orris Root, Italian	.28@	.45
Paraffin, fully ref. 122-124	.08⅜@	.08⅝
Peroxide (hydrogen U.S.P.) bbls.	.03¾@	.05
Petrolatum, snow white ..	.06⅜@	.08⅝
Propyleneglycol—U.S.P., drums	.15¼@	.16¼
Quince Seed	1.85@	2.00
Rice Starch	.15½@	.16
Rose Flower, pale	.65@	.90
Rose Water, jug (gallon)	1.25@	1.85
Rosin (gum), M. per cwt.	8.45@	8.50
Salicylic Acid U.S.P.	.48@	.53
Saponin No. 1	2.75@	2.80
Silicate, 40° drums, works, 100 pounds	1.70@	2.30
Sodium Carb. 58% light, 100 pounds .	2.75@	4.52
Hydroxide, 76% solid, 100 pounds	4.80@	4.90
Spermaceti	.26½@	.30
Styrax Asiatic	.85@	.90
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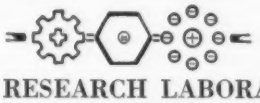

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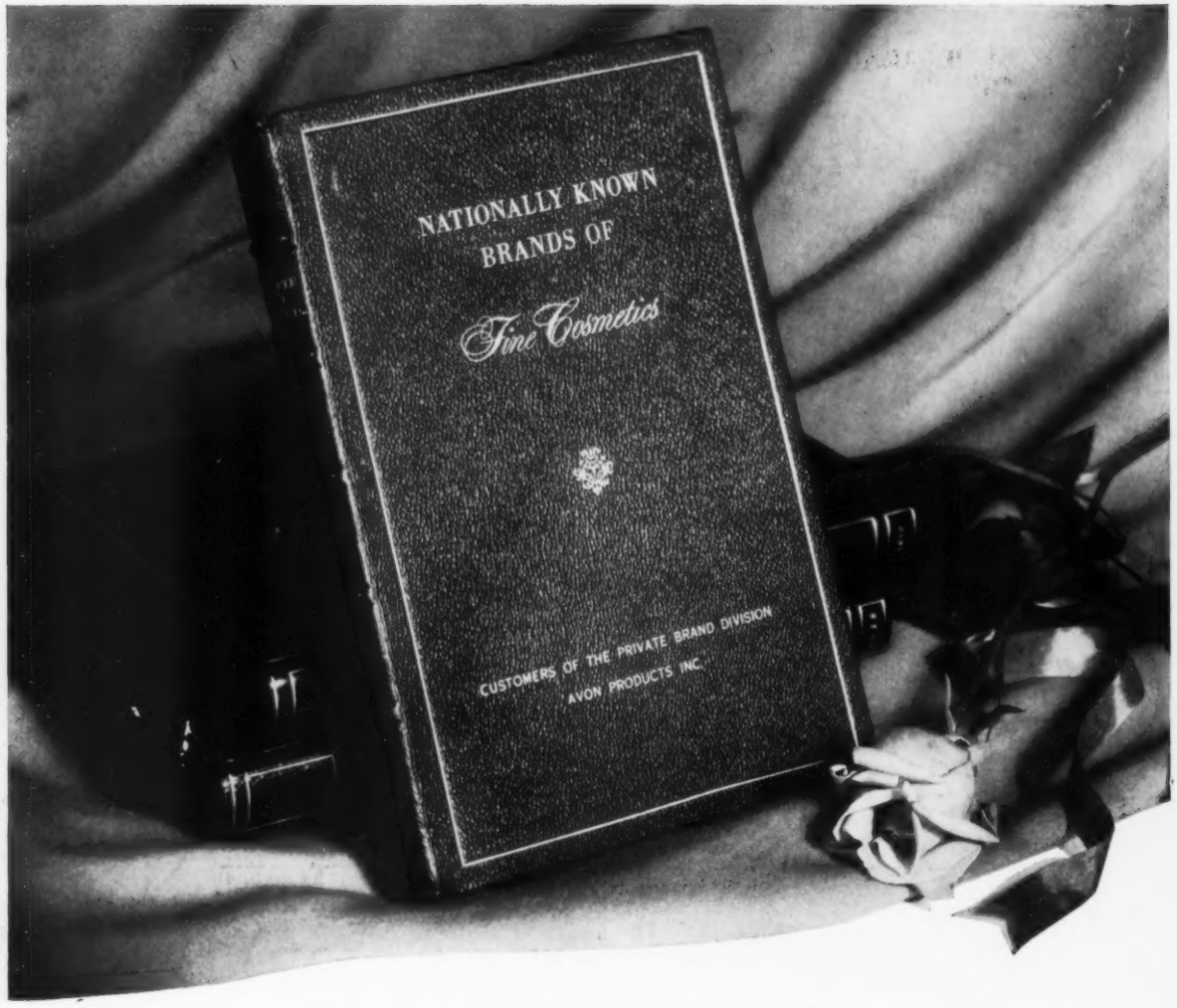

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